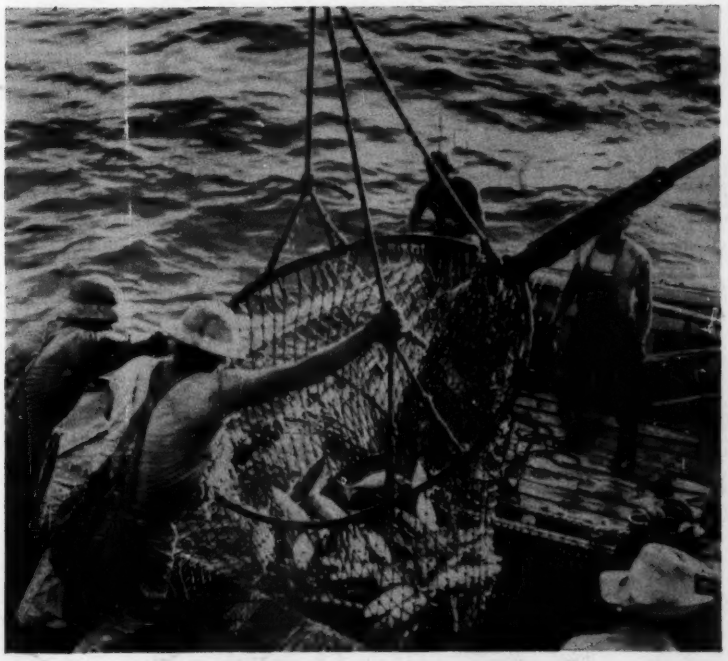
NATIONAL FISHERMAN

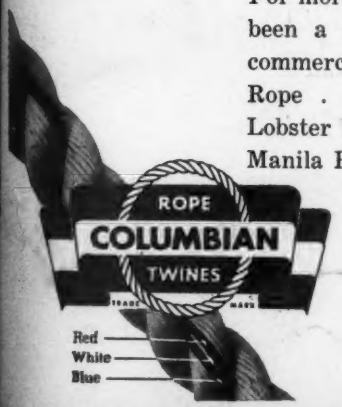
SEPTEMBER 1958



"We Recommend **Columbian** for

The Fish that Never Get Away!"

You can depend upon Columbian Fisherman's Rope — whether net or line — to come through for you when you need it. For more than 50 years, Columbian has been a foremost rope-supplier to the commercial fisherman. Columbian Net Rope . . . Columbian Buoyline and Lobster Pot Warp . . . Columbian Pure Manila Purse Line . . . these and many other Columbian products are standard equipment wherever fishing boats sail. And Columbian treated ropes — Tarred Rope, Copperized Rope, Red Kopper Rope—are chemically preserved against fungi, mold and bacteria. Long recognized as "the choice of the fishing fleet," Columbian's Fisherman's Rope helps make bigger catches on better trips.



COLUMBIAN Rope Company

Auburn, "The Cordage City," New York

The Man Who Knows the Ropes Says, "Columbian!"

This Trademark

backed by over 100 years of serving the fishing industry . . .

means you've got the very finest nylon twines and maitre cords for fishing operations.

Brownell Nylon Seine Twines, Maitre Cords and Ropes are made especially for you from high tenacity 100% DuPont Nylon yarns. But quality yarns is just the *beginning* of the *Brownell Story.* For more efficient performance, all our Nylons are engineered for the specific purposes they are to be used for. Our rigid factory specifications on all our Nylons call for the *exact twist counts* to assure you the maximum strength plus the maximum yardage. And all our Nylons are processed to prevent excessive untwisting.

For your convenience we package Brownie Seine Twines in ¼, ½, 1, or 2 pound tubes.

For your netting, specify BROWNELL—the largest and the quality manufacturer of Nylon Seine Twine and Maitre Cords . . . Make sure your netting manufacturer is using *Brownell Products!*

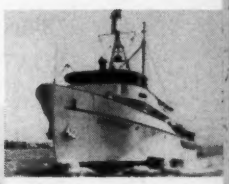
You'll find the Brownie Trademark on the largest selection of Nylons for the Fishing Industry. Here are just a few:

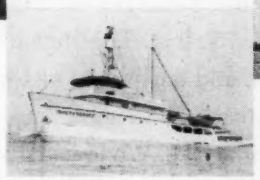
- Regular Nylon Seine Twine
- Stretched and Bonded Nylon Maitre Cord
- Lobster Pot Nylon Heading Twine (both Regular and Bonded)
- Combination Nylon Seine Twine (Spun and Filament)
- Brownie Type "E" Nylon . . . the only successful trawl or long line available today.
- Spun Nylon Seine Twine
- PLUS a complete selection of Nylon Hanging or Seaming Twines

For additional information on Brownie Products and the name of your nearest distributor, write to—

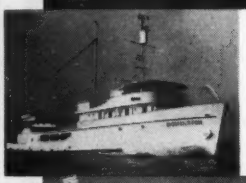
BROWNELL & CO., INC.
MOODUS, CONNECTICUT

Western Gear *Sea-Master* reduction gears selected for new tuna fleet!





Sea-Master reduction gear, Type MGV. This unit, installed in all boats of the new National Shipbuilding tuna fleet, is available in horizontal and vertical offset types and for multiple engine or motor drives, with catalog units from 200 to 5,000 HP and standard ratios from 2-to-1 to 8-to-1.



Eleven sleek, ultra-modern tuna clippers, the largest clipper fleet built in the U.S. in recent years, are equipped with Western Gear Sea-Master reduction gears.

Built by National Steel and Shipbuilding of San Diego, California, these powerful new tuna clippers are powered with Fairbanks-Morse engines driving through Sea-Master 210MGV 230 reduction gears.

All Sea-Master reduction gears are conservatively rated for continuous duty service and complete reliability even through severe and prolonged use.

Western Gear also offers a complete line of Sea-Master reverse and reduction gears for pleasure craft, fishing boats, tugboats and work boats of all kinds. To get full details, use the coupon below.

"The difference is reliability" • *Since 1888*

WESTERN GEAR *Corporation*

ENGINEERS AND MANUFACTURERS

PLANTS AT LYNWOOD, PASADENA, BELMONT, SEATTLE AND HOUSTON—REPRESENTATIVES IN PRINCIPAL CITIES

5015

Western Gear Corporation
Att. Glenn Malme
P. O. Box 182, Lynwood, California

Send details about your Sea-Master marine gear line.

NAME_____

TITLE_____

COMPANY_____

ADDRESS_____

CITY_____ STATE_____

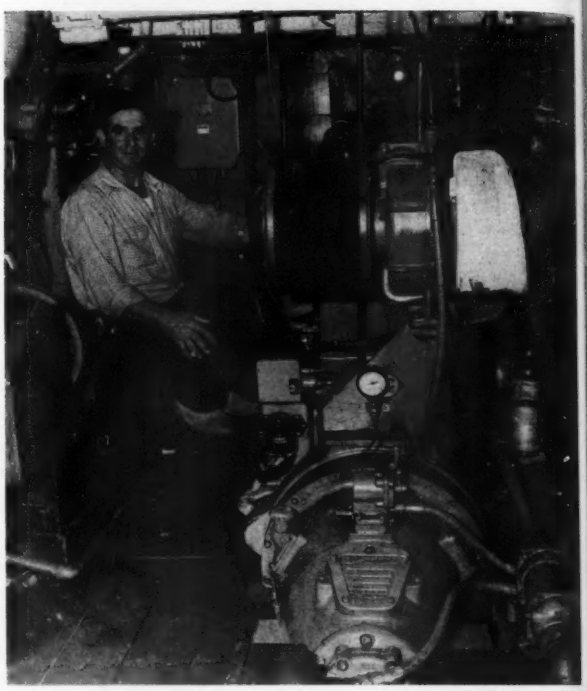
ALLIS - CHALMERS DIESEL

In Gloucester Dragger "Little Flower"

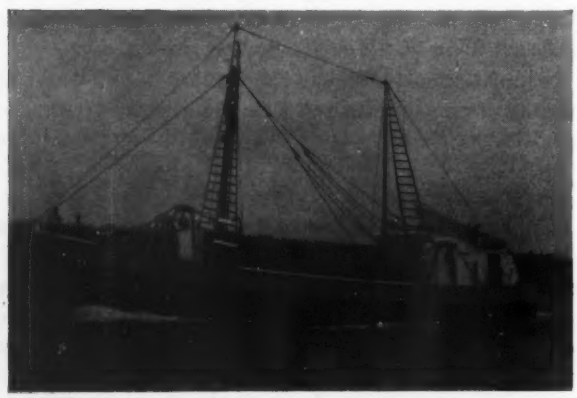
"Purrs like a kitten . . . . has plenty of towing power"

Says Co-owner Michael Frontiero

"Since we repowered with a new 8DATMR-1125 Allis-Chalmers Diesel, we're using a larger net and larger doors (7 ft., 750 lb.). The engine purrs like a kitten, and has plenty of towing power. We steam at 13 mph. and there is no sign of smoke. We tow at 1350 rpm. and still have 200 revolutions to spare."



Co-owner and engineer Michael Frontiero with new Model 8DATMR-1125 turbo-charged Allis-Chalmers Diesel in the "Little Flower".



The 65' dragger "Little Flower" is owned by Capt. Sebastiano Serio and Michael Frontiero of Gloucester, Mass.

The new engine in the "Little Flower" is a Model 8DATMR-1125 turbo-charged Allis-Chalmers Diesel with a continuous rating of 225 shaft horsepower at 1600 rpm.

The engine is equipped with Capitol HYC hydraulic 3.88:1 reverse and reduction gear, Morse marine coupling, and Cotta 2:1 front power take off with clutch. It swings a 52 x 36 Columbian R.H. Hydrosonic Style I propeller.

Sold by Allied Diesel Sales & Service, Inc., the new Allis-Chalmers Diesel was installed by Harvey Gamage, Shipbuilder, South Bristol, Me. The "Little Flower" made 12 knots on her engine trial.

ALLIED DIESEL SALES & SERVICE, INC.

332-336 Congress St. BOSTON, MASS. Hubbard 2-2280 and 2-2281

ALLIS-CHALMERS DIESEL SALES • SERVICE • PARTS

New Engines on Display—45 to 516 H.P.

Lister Diesel Engines
Pump Units, Generating Sets

B&W Lathrop Marine
Engines—30 to 155 hp.

Stewart-Warner Instruments
Aeroquip Marine Hose

The Lookout

Better Management

In view of the proposed Congressional action for aid to the fishing industry, the remarks by Dr. Donald J. White at a recent meeting of the New England Fisheries Technologists are of particular interest. A recognized authority, who has extensively studied the New England fisheries, and associate dean at Boston College School of Business Administration, Dr. White stated:

"Sooner or later, in any discussion of fisheries, one must come to grips with the question of national fisheries policy. In general today, the national policy in the United States is one of "hands off." The only notable exceptions, of course, are the very excellent Saltonstall-Kennedy legislation of relatively recent vintage, and the splendid though limited service provided the industry by U. S. Fish and Wildlife Service, Bureau of Commercial Fisheries. Is there a case for more direct and more immediate aid?

"My conclusions on this matter may be stated succinctly. Two years ago I reviewed the record of aid to their fisheries by our principal foreign competitors. Two conclusions emerged. In my opinion they are still sound. The first is that boat owners are entitled to some direct assistance from government if they are to compete on equal terms with their foreign counterparts. This is necessary not only because of the aid which those foreign governments give their vessel owners, but also because of the requirements that our fishing vessels must be built in the United States where shipbuilding costs are so far above world levels.

"The second point or conclusion which I recited in 1956 was to the effect that in the matter of grading, fish inspection, and improving educational opportunities for fishermen, the Federal Government in America must do a great deal more to help the American fishing industry if our industry is to receive a parity of treatment with that in vogue in lands abroad. Both of these conclusions are based upon the need to equalize measures of assistance; they are not based upon differences in natural advantages which may exist.

The research results which should be continuously forthcoming under the Saltonstall-Kennedy grants should be of the greatest assistance. Moreover, the research should help to raise the level of managerial skill and effectiveness.

"One of the most encouraging signs of recent years is the fact that management appears to be so much more enterprising, so much more willing to take the longer view. Here lies the real hope of the future of America's oldest industry."

NATIONAL FISHERMAN

The Fishing Industry Magazine

Vol. 39 No. 8 September 1958

CONTENTS

European Stern Trawling Successful	9
"Carol Virginia" Latest National Steel Clipper	10
Legal Cases Affecting Fishing Industry	12
Twenty Hatteras Trawlers Delivered to Mexican Firm	13
Pond Farming Could Provide Dependable Oyster Supply	13
New Bedford Sea Scallop Festival is Success	14
Fish and Seafood Parade to Spotlight Industry	20
Tuna Forecasting Possibility Studied	22
Pacific Oyster Growers Elect Seattle Man	23
Louisiana May Have New Industry in Scallops	25
Iceland's Fishing Limit Tested by British Trawlers	28
How Coast Guard Rescues Dragger in Zero Fog	30

REGIONS

North Atlantic	15
South Atlantic	18
Gulf of Mexico	24
Great Lakes	26
Pacific Coast	21

DEPARTMENTS

Fishery Progress	7
Equipment & Supply News	34
Boat Catches	36
Where-to-Buy Directory	40
Foreign Bailings	41
Boat & Gear Mart	42

P. G. LAMSON, President — GARDNER LAMSON, Publisher and Editor — D. M. STRICKLAND, Managing Editor

Publication Office: National Fisherman, Goffstown, N. H.—Hyacinth 7-4821

Formerly Atlantic Fisherman, Established 1919. Published monthly by Atlantic Fisherman, Inc.

Member: National Business Publications and Business Publications Audit of Circulation

Pacific Representative: Murray Bothwell, 234 E. Colorado St., Pasadena 1, Cal.—Ryan 1-9155

Accepted as Controlled Circulation Publication at Manchester, N. H.

Yearly subscription rates: United States, $4; Foreign, $6. Single copies, 50¢

1-2-3------11...

Monel shafts drive all National Steel's tuna clippers!

First came the *Dominator* and the *Cabrillo*. National Steel & Shipbuilding Corporation, San Diego, Calif., built these clippers to range far—the Galapagos, even Peru—to bring back 340-ton loads of tuna.

The West Coast wanted more. Ordered: the *Independence* (3), *Concho* (4), *Missouri* (5), *Westport* (6), *Elsinore* (7), *United States* (8), *San Juan* (9), *Mary Barbara* (10), and *Carol Virginia* (11).

In each of these eleven giant fishermen, National Steel protected owners' profits with Monel nickel-copper alloy shafting.

This builder knows a Monel shaft can be relied upon to bring a tuna boat back safely from a voyage. That's because Monel alloy is extra tough and strong—withstands tremendous shocks.

National Steel knows Monel alloy is extra hard—withstands wear. It's extra stiff—minimizes whipping. And Monel alloy is highly resistant to marine corrosion.

Monel alloy lasts longer at sea. Specify Monel shafting for your new boat—or when your present shaft is no longer serviceable. Specify Monel alloy for *all* fittings and fastenings subject to hard use and corrosive attack.

THE INTERNATIONAL NICKEL COMPANY, INC.
67 Wall Street New York 5, N. Y.

MONEL INCO TRADE MARK **Nickel Alloys**

"... it's the Seagoin' metal"

Monel and Seagoin' are registered trademarks of The International Nickel Company, Inc.

WHY REPLACE "DOMINOED" CORNERS? WHY REHANG EVERY TWO or THREE TRIPS?

Change To

"WESTERN JIB" TRAWLS

(U. S. Pat. 2,816,386)

THE IMPROVED "FLAT" TRAWL

INCREASED CATCHES — LOWER UPKEEP

Other High-Liner Fishermen Are Making Them Pay Off. How About *YOU*, Skipper?

WESTERN TRAWL & SUPPLY COMPANY

FREEPORT, TEXAS

ROCHESTER WIRE ROPE MARLON NETTING NEW BEDFORD ROPE

FISHERY PROGRESS

► Fishery Funds Use

Massachusetts senators promised to keep an eye on next year's budget to be sure Saltonstall-Kennedy fisheries research funds are not diverted to other uses in the Commerce Department's Bureau of Commercial Fisheries.

In a joint statement, Senators Saltonstall and Kennedy, indicated the Budget Bureau has confirmed reports that the funds are now being used for regular operations of the fisheries bureau.

"This is contrary to the spirit and intention of the act," they said. "The act was passed to provide funds from other sources than the General Treasury for the improvement of the fishing industry. They should be administered separately and the budget for the Bureau of Commercial Fisheries should be prepared without reference to them."

Their statement was issued upon receipt of a Budget Bureau answer to their request for an accounting of how fisheries fund is used. The money is built up from import duties collected on fisheries products and is earmarked for projects to boost production and consumption of domestically produced fish.

The Budget Bureau said, "Please be assured that in preparing the budget for the 1960 fiscal year (begins next July) every effort will be taken to insure that fishery research and exploration functions receive proper consideration within the framework of Federal responsibilities."

► Loan Fund Increase

The House Merchant Marine and Fisheries Committee on August 14 reported favorably the Magnuson bill, to the House. The measure has passed in the Senate. It will provide an additional $10 million to be used for the vessel loanfund now being administered under the Fish and Wildlife Act of 1956.

► Trade Agreements Act

The House and Senate conferees agreed on an extension of the Trade Agreements Act recently. The provisions of the reported bill now go back to both houses for final approval.

The provisions extend the program for another four years. The House bill had provided for a five-year extension, the Senate bill three years.

The President has the authority to negotiate tariff reductions of 5 percent a year or a total of 20 percent during the life of the act. However reductions may not exceed 10 percent in any one year. The House voted a maximum 25 percent reduction with no more than 10 percent in one year and the Senate a total of 15 percent with an annual maximum reduction of 5 percent.

The base date for computing permissible increases in duty was changed from January 1, 1945 to July 1, 1934. The provision was contained in both Senate and House bills.

The conferees accepted a Senate amendment which permits the President in the case of a specific duty to convert such specific duty as it existed on July 1, 1934 to its ad valorem equivalent based on 1934 value before increasing such ad valorem rate up to 50 percent under the escape clause.

Items bound on the free list in a trade agreement may have a rate up to 50 percent imposed under the escape clause.

The conferees agreed to a modified version of the Senate's provision broadening the basis of appeal for tariff protection for reasons of national security.

The Senate provision establishing a nine-member commission to investigate tariff policies was rejected.

► Dogfish Bill

The House Merchant Marine and Fisheries Committee reported favorably, with amendments, the Magnuson bill which provided for the payment of bounties for the control of the salmon and halibut predator, dogfish sharks. The House bill deletes the payment of any bounties but provides for investigations for a period not to exceed four years and authorizes an appropriation of $95,000 per annum.

Investigations would include studies of abundance and distribution of dogfish sharks, experiments to develop control methods, and a vigorous program for the elimination and eradication or development of economic uses for dogfish sharks.

► Fishing Aid Bill Dies

A bill providing for loans and other Federal aids to the domestic fishing industry was pronounced dead by Senator Saltonstall of Mass. One of its chief sponsors, the senator said there is no chance of action on a pending Senate measure since the House Fisheries Committee tabled the companion bill.

The New England groundfish industry has twice been denied tariff relief because of national security considerations. President Eisenhower is reported to have turned down tariff relief because of a threat from Iceland, a large fisheries exporter, that our Air Force bases in that country might be taken away.

Saltonstall said that he will renew his fight for the program when the 86th Congress convenes in January.

► New Seafood Product

Quick frozen fried clams from New England are one of the latest seafood delicacies. H. J. Seller Company, Boston, is the distributor of the new item which is in a heat and serve aluminum pan. It is on the market in New England, New York and Pennsylvania.

► Halibut Transport

Bills sponsored by Senator Warren Magnuson and Congressman Don Magnuson, both of Washington state, to enable certain small vessels operated by cooperatives or associations to transport halibut on a non-profit basis in and between inland waters in Southeastern Alaska, Prince Rupert, British Columbia, and to and from the State of Washington, have passed both Houses of Congress. Senator Magnuson has agreed to an amendment offered by the House and has asked for a conference. It is expected the measure will soon go to the President.

► President Signs Bills

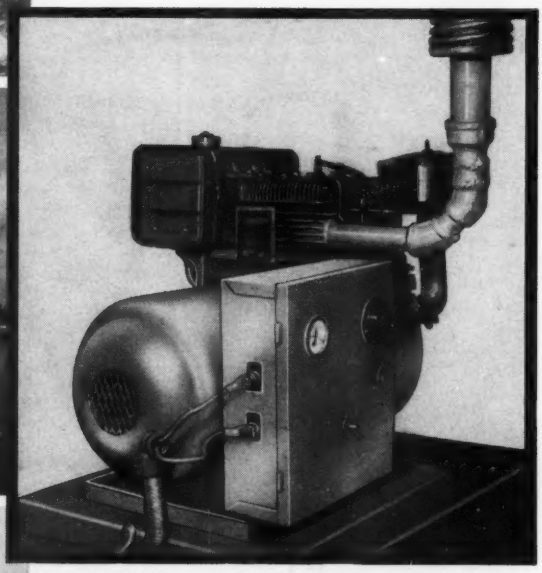
The President has signed a measure recently that authorizes the Secretary of Interior to undertake continuing studies on the effect of insecticides, herbicides, fungicides, and other pesticides upon fish and wildlife for the purpose of preventing losses of these natural resources.

A second bill signed by the president amends the Migratory Bird Act by increasing the cost of duck stamps to $3. All revenue will be used to purchase marsh areas along the coasts to provide refuge for waterfowl. The interest of the fisheries is due to the fact that these marsh areas provide tremendous spawning grounds for fish and shellfish, including menhaden and shrimp.

► Rewards for Torpedoes, Mines

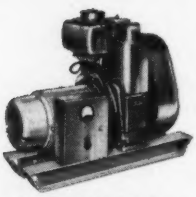
The Navy is offering rewards for the recovery and return of lost torpedoes, mines, target pilotless aircraft, camera pods, paravanes and related articles. The recovery of a lost torpedo or information leading to recovery earns the finder $100; lost mines bring $50; and pilotless aircraft and other material are good for $25. Information leading to such recoveries should be turned in to the nearest naval authority.

Skippers, Builders and Fleet Owners rely on WINPOWER for Power and Light

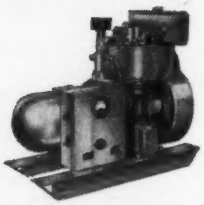


ACTUAL WINPOWER INSTALLATION

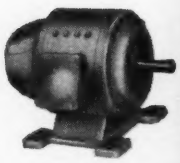
The photograph to the left shows an actual WINPOWER installation on the Jeanette, one of the latest shrimp trawlers built by Congeladora del Pacifico, Mazatlan, Mexico. Like hundreds of other commercial craft, the Jeanette depends on a WINPOWER Electric Plant for dependable, low-cost power and light afloat.



DIESEL ELECTRIC PLANTS
3 KW to 100 KW
Water-Cooled



GASOLINE ELECTRIC PLANTS
1000 Watt to 100 KW
Air or Water Cooled



GENERATORS
1000 Watt to 100 KW
All Voltages and Cycles.

There's a WINPOWER that's just right for your craft

Shrimpers, trawlers, tugs, workboats of all kinds...there's a Winpower Plant of the size and type needed to furnish power for flood-lights, radio, bilge pumps, compressors. They cost less to own, less to operate. Each WINPOWER Plant is designed and built to provide years of trouble-free operation. Generators are direct-drive mounted, permanently aligned and engineered for maximum performance and dependability. You are not paying for costly features not essential for efficient operation. Wide range of engine sizes, gasoline or diesel. Write today for FREE illustrated folder.

MARINE ENGINE ASSEMBLERS
Write for special OEM prices and information on WINPOWER Generators—lower your cost on Marine Electric Plants.

WINPOWER MFG. CO.
NEWTON, IOWA, U.S.A.

European Stern Trawling Successful

Trawlers switch to over the stern method and shelterdeck design in an effort to convert to factoryship procedure

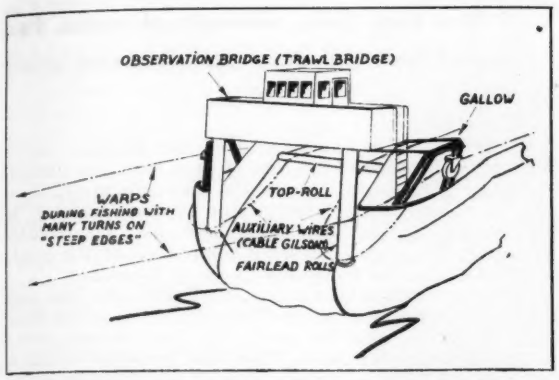


Diagram of the stern ramp on the "Fairfree" showing auxiliary wires (Cable-Gilsons) used to pull cables away from trawl-doors to ramp while warps are slacked, and vertical fairlead rolls.

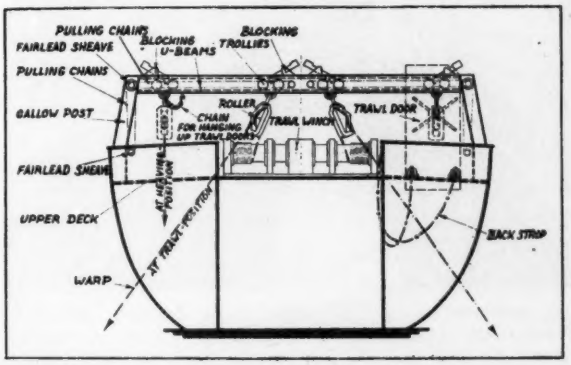


Diagram showing transversely movable gallow rollers. Trollies can be blocked in side position when hanging trawl board or in near center position. Trollies are moved by pulling chains and sheaves.

THE design of trawlers is undergoing a fundamental change at present. Instead of the single-deck-trawler arranged for handling the net over the side, the future development points almost imperatively toward the use of shelterdeck vessels arranged for handling the trawl-gear over a ramp at the stern. This rather radical diversion from a fishing method which had become standard practice throughout the world for decades, was caused by the desire to convert trawlers designed so far exclusively for catching and transporting the fish into factory-trawlers. Processing of the catch, the increased number of men required and the placing of additional machinery, raised space problems, the solution of which required either sacrificing fish hold capacity or gaining space by adding a shelterdeck, a "semi-shelterdeck", i.e. on one side only or a trunk deck.

All these proposals, however, when combined with the usual method of handling the net over one side of the ship, meant difficulties for placing the trawl-winch and leading the warps and moreover seriously curtailed the space on the working deck for handling the catch in a continuous flow.

The "side trawler" must take the net up always on the windward side to avoid being driven over the net. To do so, she must be turned parallel to the direction of the waves, which, of course, in bad weather causes heavy rolling of the ship. These "intended" movements are of material assistance to the crew, when pulling up the belly of the net, but are at the same time a serious disturbance, when the trawler is fitted out with conveyor belts and processing machinery.

The Change to Stern Trawling

Such considerations caused the British designers to search for ways and means of handling the trawl gear over the stern. It took quite a while to overcome the great skepticism of the conservative fishermen against this new idea, but thanks to the successful trials on the British factory trawler "Fairtry" as well as on the numerous Russian factory trawlers of the "Puschkin-Class", developed by the Howaldtswerke, Kiel, the way is now free for a more general application of the stern handling method. The fear that the fish would be squashed when pulling the cod-end up over the stern ramp proves to have been unfounded. The normal round-fish required neither roller conveyors, nor a lifting platform at the stern nor an inclined conveyor belt nor a large diameter top-roll at the upper end of the ramp as used on the "Fairfree" and the "Fairtry". Instead, a simple ramp without any moving parts proved absolutely sufficient when having a parabolic cross section at the lower end and meeting at its upper end the deck with a large diameter circular form.

Handling The Trawl Gear

The method and the arrangements of handling the intricate trawl gear over the stern, however, causes a good many difficulties. Every yard and every owner tried to find their own ways and have, when possible, put them under patent protection. The most difficult problem was the method of shifting the pull of the net-warps from the gallows on to the stern ramp and vice-versa.

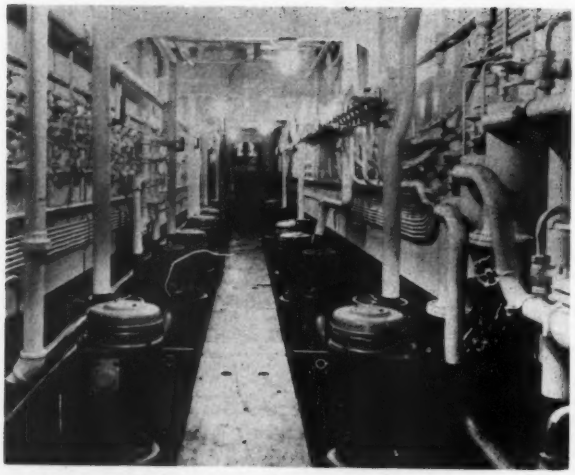
On the "Fairfree" and "Fairtry" additional auxiliary wires (Cable-Gilsons) were used to pull the cables away from the trawl-doors on to the ramp while at the same time the warps were slacked.

The complete manoeuvre of hauling is carried out as follows: The warps, leading from the gallows, which are arranged at the side of the stern over two fairlead bollards, to the winch drums, pull the boards up into their lifted position. The boards are hung up then and disconnected from the warps and cables, while between the two latter the independent pieces transmit the pull from one to the other. On each side of the slipdeck and the ramp, auxiliary wires (Cable-Gilsons) are carried around the corresponding sides of the stern and connected to the forward end of the cables, and heaved in then by means of warping drums, arranged on the sides of the trawl-winch. At the same time the warps are slacked to the necessary extent. By this manoeuvre the net is pulled up on to the main deck until the dan lenos reach the net winch. The free length of deck being about 70-80', is not sufficient to take the net, which has about double this length, up in a single heaving operation. For these reasons the cables must be clamped to the deck in order to get the warping drums free for a second pull by means of Gilsons. This pull is sufficient then for lifting the cod-end on deck also.

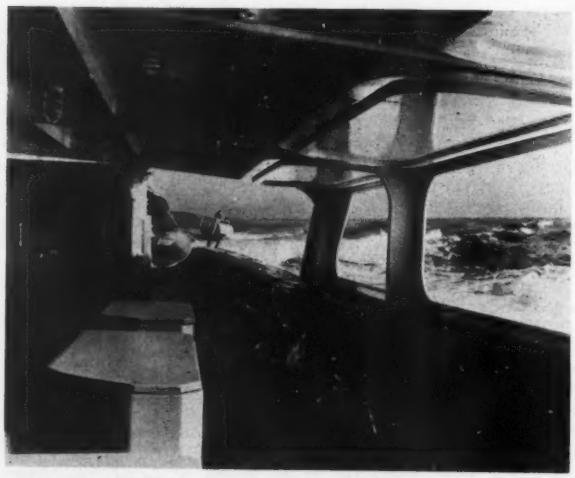
On the "Fairfree", which is a reconstructed corvette of the British Navy, the deck runs continuously, i.e. without interruption but with small sheer, right through to the stern. The deck is rounded off on the sides of the ramp,

(Continued on page 31)

* This article is based on material written by C. Birkhoff, Bremerhaven, Germany, and presented at the FAO International Fishing Gear Congress.



The shaft alley of the tuna clipper "Carol Virginia" showing 13 Fairbanks-Morse vertical centrifugal pumps. Pumps handle brine for refrigeration and water for bait tanks. The vessel was built by National Steel & Shipbuilding Corp., San Diego, Cal.



Looking aft from the galley of the "Carol Virginia" showing two of the brine wells in the foreground.

Breast O' Chicken tuna is harvested by the crew of the "Carol Virginia" sailing out of San Diego to fishing grounds off South America and the Galapagos Islands.

"Carol Virginia" Latest National Steel Clipper

New tuna boat, eleventh of series, has excellent pumping capacity, ventilation

SAN Diego's newest tuna clipper, the all-steel *Carol Virginia*, brought in 325 tons of tuna from her maiden voyage last month. She is the eleventh vessel in a series of standardized clippers built by National Steel & Shipbuilding Corp. of San Diego, California. The twelfth member of this class is nearing completion at the yard, and is scheduled for launching by early November.

The *Carol Virginia* is captained by Peter Giacalone and is operated by National Marine Terminals, Inc., a firm that runs a fleet of vessels for producing tuna packed under the Breast O'Chicken label. The boat is owned under a corporate set-up by a large number of stockholders.

Like her predecessors, the new clipper, is equipped with a Fairbanks-Morse opposed-piston Diesel for propulsion and a full complement of F-M pumps. Her trials indicated the reasons for the continued demand for National Steel clippers. With the Diesel turning at 720 rpm, the vessel showed a maximum speed of 12.2 knots. The maximum fuel efficiency speed was a high 11.1 knots compared with most clippers' MFE speed of 9.6 knots, an important advance in the tuna fishing business. Behind the *Carol Virginia* and her ten sisters are years of exhaustive effort in design, testing and building and, like her sisters, her design incorporates the most modern solutions to problems of fishing for tuna, primarily going farther to get fish.

Of the many problems in tuna clipper design, primary is the danger of creating a bulky or unstable boat. This is due to the need for large amounts of water above and below the deck for proper storage of freshly caught fish. A low stern deck is absolutely essential for tuna fishing, which adds to the designer's problems. With a normal catch running from twenty to thirty tons of fish, a great deal of space is needed on that stern deck. The design of these clippers incorporates sufficient beam (32' 6" molded) and void flotation space to give more than ample flotation. This is further developed by the rapid rise of the deck forward of the bait box, thus creating more freeboard.

The vessels are prefabricated, being built in seven principal sections, with the two bow and one stern sections being constructed in the open right beside the launching ways. The inner bottom, midships and deckhouses are built in the structural shops and craned to assembly at the launching site. All sections of the vessels are blocked in place and fitted to ¼" tolerance before welding.

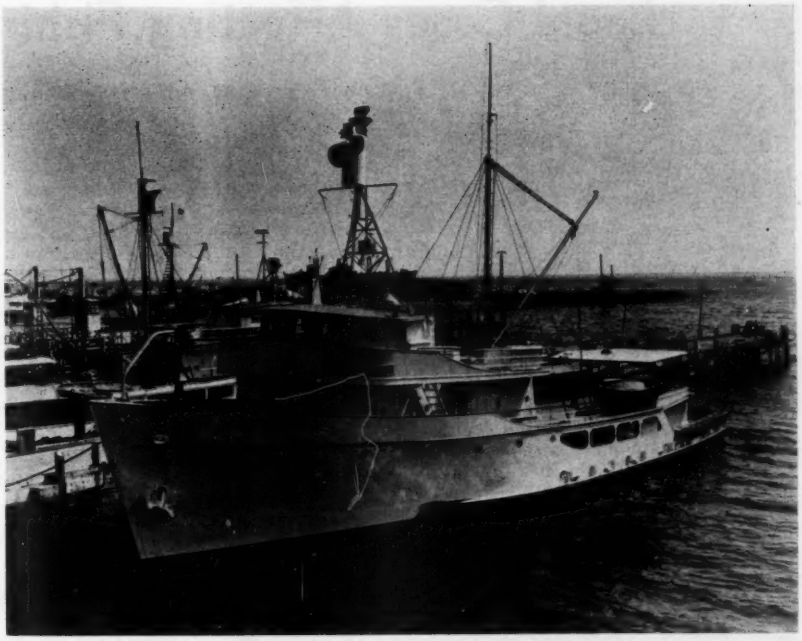
The hulls of the tuna clippers utilize a longitudinal framing system, and built-in corrosion resistance. Scantlings, structural details and welding are in general conformance with ABS requirements.

A fully watertight bulkhead is located at the aft end of the galley. A watertight door in the bulkhead, which is just starboard of center, gives access to the engine room. The advantage of this arrangement is in the elimination of the two side alleys and wing doors. Vessels with side wing doors are more vulnerabe to flooding when the inclination is over 20 degrees. National Steel's design permits safer inclinations up to 60 degrees, and the increased area due to the elimination of side alleys is also of value.

The clippers are 127' long with a molded beam of 32' 6" and a molded depth of 14' 6". Fish capacity is 340 tons with a loaded displacement of 765 tons. Other capacities are: fuel oil, 48,500 gallons; fresh water, 4,000 gallons and lube oil, 1600 gallons. On the *Carol Virginia*

the main engine is a Fairbanks-Morse six cylinder, 960 hp., 720 rpm, direct-reversing opposed-piston marine Diesel. It drives the five-bladed 90" x 74" Columbian Bronze propeller with a Monel shaft at 240 rpm through a Western Gear "SeaMaster" 3:1 reduction gear. Compactness and light weight permit greater range and payload. A Goodrich Cutless rubber stern bearing is used.

The basic layout of the *Carol Virginia* is identical to her ten sisters. Her main engine gauge board, mounted on the engine room's forward bulkhead, monitors starting air, water temperature, scavenging air, lube oil and fuel oil pressure. The Alnor pyrometer, located in the center of the board, reports exhaust temperatures of each cylinder.



127' San Diego tuna clipper, "Carol Virginia", is powered by 960 hp. Fairbanks-Morse opposed-piston Diesel, with Western 3:1 reduction gear.

Pumping Capacity Great

The tuna clipper has a lot of pumping capacity of meet requirements of bait tanks and fish wells in addition to normal ship pumping needs. As a matter of fact, the total pumping capacity of the eleven National Steel boats launched is 115,224 gallons per minute. National Steel provides each well with pumps used for both the brine and bait water circulation system. The dual purpose pumps circulate water through the bait tanks. When a bait tank is emptied, the pump moves brine, refrigerated to a low temperature by the compressors, through the wells, preserving the valuable cargo of freshly caught tuna.

Thirteen Fairbanks-Morse 4" x 5" Figure 6720V vertical centrifugal pumps are used for the dual purpose job. Six pumps are on one side of the shaft alley and seven are on the other. Each pump is driven by a 7½ hp. Type KZKU vertical solid shaft motor. This system of using many smaller pumps leaves the shaft alley clear for passage by crew members and provides easy accessibility for repairs of bait tanks.

An F-M shallow well piston pump, moving 240 gph. at 20 psig., supplies soft water for the sanitary system of the clipper, while another, at 240 gph. under 40 psig., supplies fresh water for domestic use such as cooking, bathing and drinking.

A 1½", Figure 5551 Builtogether pump, powered by a 1½-hp. QZK motor, does the ballast pumping. The bilge pumps, also F-M, are 3" by 4" Figure 6720V vertical centrifugal pumps with 3 hp. vertical solid shaft motors. These pumps have the task of keeping the bottom of the boat dry and are in almost constant use. The job of fire protection for the clipper is handled by an F-M, Figure 5531 end-suction pump, close-coupled to a 4 hp. vertical solid shaft motor. This pump supplies all the water for the fire hose and fire protection system. The pump for the condenser circulating system is a Figure 6720V vertical centrifugal, driven by a 3 hp. solid shaft motor, pumps salt water to the refrigeration compressors for cooling purposes. A pair of rotary pumps handle the fuel and lube oil transfer duties.

Four Ammonia Compressors

Four 6" x 6" Worthington ammonia compressors, driven by 30 hp. squirrel cage motors keep the fresh tuna chilled. The compressors are rated at 24.3 tons each. The galley has its own 3" x 3" compressor, driven by a 5 hp. F-M motor, to keep the two crew coolers chilled. This gives the crew members fresh meat and vegetables.

The National Steel combination chain and wire rope windlass is mounted forward. It is powered by a two-speed, 5/10 hp., F-M type QMZK induction motor, and has a 1350 ft. cable winding capacity for deep water anchoring. On the raised deck aft, two motor tenders and two skiffs are mounted on the chocks with ample space left for two fully assembled bait receivers. The boats and one of the bait tanks are located on a common radius from the mast so the boom elevation remains constant for the various operations. A 5 hp. motor drives the cargo winch.

Other modern equipment aboard are two radio transmitters, a Sperry magnetic compass, hydraulic steering (driven by another F-M motor) radar, and a Raytheon recording Fathometer.

Ventilation Stressed

Major emphasis was put on the various ventilation problems. In the engine room, for example, it was decided that in addition to supplying fresh air, heat must be removed from the room to cool it adequately. This is accomplished through a powerful exhaust fan, installed in the fan room, which draws the air up through the stack casing into the fan room. Fresh air is supplied by an axial type fan at the rate of 10,000 CFM. The galley sports an 1850 CFM blower which gives it a complete air change every minute.

Several modifications have been made in the conventional deckhouse arrangement. The layout of toilet, shower and washing basins has been arranged to allow all of these facilities to be used with ample space and privacy. The crow's nest is mounted on a steel tripod atop the pilot house, forward of the exhaust system. The conventional crow's nest is mounted on the mast, thus exposing crew members to engine exhaust while on lookout. Still another feature is the small but gracious chapel aboard for all hands.

When competition is keenest, profits are made by the clippers that can go farther and faster, operate more efficiently and economically. The names of National Steel's clippers—such as *The United States, Elsinore, Westport, Independence, Mary Barbara, Cabrillo, Dominator, Missouri, Concho,* and *San Juan*—mean speed, range, capacity and efficiency to tuna fishermen. The *Carol Virginia* embodies these latest improvements for improved operation.

Legal Cases Affecting Fishing Industry

By Leo T. Parker, Attorney at Law

IN the past several months the higher courts have rendered a number of outstanding decisions which affect the fishing industry. These important decisions are reviewed below. Readers may want to clip this article for future reference as the legal information will help avoid similar legal controversies. The readers and their lawyers can advantageously use the cited higher court decisions to win unavoidable law suits.

Insurance Company Must Pay Loss

Last month a higher court rendered an important decision to the effect that the owner of a fishing vessel does not violate an insurance policy where he fails to immediately notify the insurance company of what appears to be inconsequential damage. This case is unusually important because in the past the higher courts have held that failure of the owner of a damaged fishing boat to immediately notify the insurance company invalidates the policy.

For illustration, in Utah Home Fire Insurance Company v. Jones, 242 Fed. (2d) 513, it was shown that an insurance company issued an insurance policy to one Jones insuring a fishing boat named *Tuna Fish*.

The master determined that the propeller shaft or wheel was bent. He tightened the stuffing box to keep the shaft from turning, and being of opinion that damage would result if the engine was operated, he concluded that it would be advisable to have the *Tuna Fish* towed to the nearest port.

Because the damage to the vessel appeared to be less than $25,000.00 he did not immediately notify the insurance company of the injuries to the vessel. Within a few days after the operation of towing the vessel started, it sank while on the trip. The higher court held that the insurance company must pay the loss, as delay in notifying the insurance company did not increase the risks assumed by the company.

Repairman Liable for Negligence

Recently a higher court held that either the owner or lessee of a fishing boat can recover damages from a repairman who negligently performs his work.

For example, in Arnesen v. Rowe Works, 284 Pac. (2d) 329, the testimony showed facts, as follows: A man named Arnesen has for many years been a fisherman, and during the last few years he was engaged in the halibut fishing business. Arnesen made a contract with the owner of a motor fishing vessel named *Wireless*. By the terms of this contract Arnesen agreed to operate the boat for fishing purposes and pay the owner of the boat a percentage of the profits. Also, the owner agreed to put the vessel in good repair. Arnesen took possession of the *Wireless* and delivered it to a dock operated by the Rowe Works, with the understanding that it would make certain repairs and adjustments to the engine. It was understood at this time that the bill for repairs would be paid by the owner of the vessel.

It was alleged that while the vessel was at the dock, an employee of the Rowe Works negligently and carelessly deposited a quantity of Bon Ami into the blower of the Diesel engine. Due to the resultant damage to the engine Arnesen was unable to use the vessel to earn anticipated profits on the intended fishing trip. Arnesen sued the Rowe Works for heavy damages equal to the loss of his anticipated profits he would have earned on the fishing trip.

The higher court refused to award any damages to Arnesen because, first, Arnesen was not the owner of the vessel; and second, the owner had no contract with the Rowe Works to repair the vessel. The higher court reversed this judgment and said:

"A repair service owner, or other person, who contracts to make repairs on a boat and performs the work in an unskillful or negligent manner, is liable for the damage proximately resulting from the improper performance, and which can be regarded as having been within the contemplation of the parties."

In other words, as between the owner of a boat or the lessee who ordered repairs, and repair serviceman the latter always is liable for all damages and financial losses resulting to the former from negligence of the repair serviceman.

Liable on Broad Contract

According to a late higher court decision if the owner of a service shop contracts to do "all necessary" repairs on a boat in order to put it in "first class" condition he must fully complete his contract, although later he discovers needed repairs not contemplated by either the boat owner or him when he signed the original contract.

See Triple "A" Machine Shop v. United States, 235 Fed. (2d) 626. The testimony in this case showed that the Triple "A" Machine Shop, contracted to do certain repair work on a boat at a stated price. The written contract stated that the shop owner would "provide for the complete repair and reconditioning, both mechanically and structurally" of the boat necessary to place the boat in first class operating condition.

Later the shop owner discovered work to be done on the boat which originally neither the boat owner nor the shop owner knew was required to be done. The shop owner contended that the boat owner must pay "extra" for this work.

In subsequent litigation the higher court held that the shop owner may not recover "extra" payment for this "extra" work, and said that according to the contract the shop owner agreed to put the boat in first class condition for $3,750.00.

Small Damages Allowed for Injury

Very frequently both a jury and higher court will drastically limit the amount of damages allowable an injured person, notwithstanding the employee's testimony of having sustained severe injuries.

For illustration, Walchel v. Coronado Marine Ways, 301 Pac. (2d) 898, the testimony showed facts, as follows: The Coronado Marine Ways operated a yard where boats were towed from the water on cradles by means of a rail and a power-operated cable winch. Walchel's fishing boat (46 ft. in length) was resting on a scaffold on the ways in the yard, on a day-rental basis. The owner of the boat was painting the name on the stern by standing on a scaffold erected on horses. This scaffolding was not visible from the winch. An emloyee of Coronado Marine Ways without warning to Walchel started the winch and Walchel fell to the ground.

The injuries as a result of his fall were sickness of the stomach, coughing causing pain in the neck and lower spinal region, contusions on his back and shoulders, headaches, instability of his right leg, dizziness, impairment of hearing, etc., and inability to do heavy work. Walchel sued the Coronado Marine Ways for several thousand dollars damages.

The jury awarded Walchel only $500.00 damages. The higher court approved the verdict, saying:

"The jury and the trial judge fully considered the amount of the award based upon this evidence. Their finding in this respect, from the evidence produced, cannot be disturbed on appeal."

The last delivery of Camaronera boats alongside the Morehead City (N.C.) Shipbuilding Corp., a few days before leaving for the Pacific Coast of Mexico, for the Compania Camaronera S.A. fleet in Salina Cruz.

"Camaronera 18" one of 20 boats built by Morehead City (N.C.) Shipbuilding Corp. for Ricardo Navarez, Salina Cruz, Mex. She is powered with a D-339 Caterpillar Diesel and has 2:1 Twin Disc reduction gear.

Twenty Hatteras Trawlers Delivered to Mexican Firm

THE Morehead City (N.C.) Shipbuilding Corp. recently completed delivery of its largest, single order, when twenty 58′ Hatteras Trawlers were turned over to Compania Camaronera, S. A., of Mexico City, of which Ricardo Navarez is president and Pedro de Regil is vice president.

The boats are named Camaroners 1 through Camaronera 20, and all are double rigged and identical in appearance. They form the basis of a fleet the Mexican concern is building for operation off the west coast of that country, especially around the Gulf of California. Reports from Mexico are to the effect that if Navarez goes through with his tentative plans he will become the largest operator of shrimp boats in those waters, with an expected fleet of 100 vessels in the near future. Compania Camaronera is affiliated with Ocean Garden Products Inc., of San Diego, Cal., which is the Mexican campany's American sales outlet.

All the Camaronera boats have 24′ outriggers, complete with towing blocks. All are fully insulated with four inch Styrofoam. There are four bunks in each pilot house instead of the usual two found in the deckhouse of most 58′ Hatteras Trawlers. All carry two fuel tanks of 1,050 gallons capacity each, and a 60 gallon lube tank.

The boats were delivered in lots of four and six—the last six trawlers being turned over to the owner's crews the last week in July. The crews were sent from Mexico to Morehead City and took the boats southward through the inland waterway to Miami, Fla., and from there through the Panama Canal to the Pacific and northward to Salina Cruz, Mexico.

Each of the 20 Camaroneras is powered with a D-339 Caterpillar Diesel rated 100 hp. at 1225 rpm., with 3:1 Twin Disc reduction gear, turning 46 x 34 4-blade federal propellers on 3″ Tobin Bronze shafts. Twenty 515-½ Stroudsburg winches are on the Camaronera decks. Onan supplied both the 1500 watt main generators and the 750 watt auxiliaries. The four batteries in each Camaroners are 8 volt Hixons. The main bilge pumps are 1½″ Marine Products and the auxiliaries are 1¼″ made by Jabsco.

Bendix supplied the electronics for the fleet. In 16 boats the depth recorders are DR-16 and the remaining four are DR-14. The radio telephones are Bendix Mates.

Other equipment includes Walter keel cooler, One-Mile-Ray searchlight, Northill anchor, Wall manila rope, 5″ Ritchie Globe Master compass, Kidde fire extinguishers, Marmac controls, Mahogany steering wheel supplied by Marty's Wood Products, and all 20 boats are finished with Woolsey paint.

Pond Farming Could Provide Dependable Oyster Supply

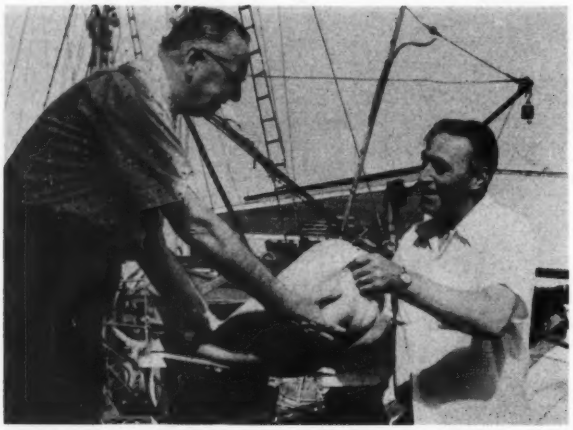
DURING a recent Gulf Coast Marine Fisheries Commission meeting David H. Wallace, director of the Oyster Institute of North America said that the oyster industry in the United States today is enjoying the greatest demand in its history. However, he went on to say, if private producers and governmental agencies do not do something to increase the production of oysters, to combat destruction of the oyster grounds and to abate the pollution of waters, the future of the industry on the Gulf Coast would be limited.

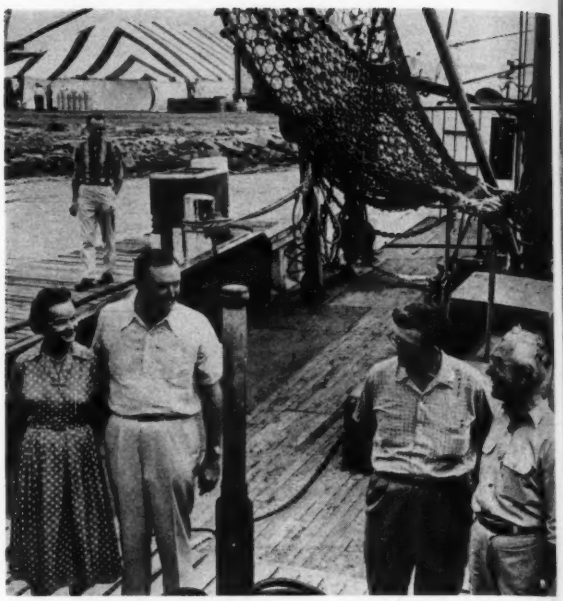
George Staples, professional engineer and licensed waterman from Crisfield, Maryland, wrote recently that Maryland's natural rocks, all-state production figure is 10 bushels per acre at present compared to 50 bushels per acre in 1885. He blamed the high cost of catching and producing, the short supply, and the failing of oyster businesses in that area on two things. One of these, the lack of public understanding and interest in the industry and the other the work of politicians enacting and maintaining old fashioned and unrealistic laws based on public ignorance to the advantage of the politician.

Regarding the failure of the Long Island Sound oyster settings for the summer of 1957, the Fish & Wildlife Service said the open sound is unreliable for obtaining a regular set and that control of enemies of spat and young oysters will remain difficult and expensive in that area.

Some, among the leading oyster business men and scientists, agree that the reasons for such conditions may be eliminated by one or all of three means. The first way is to inform the public and wait for them to get rid of the low-quality politicians. Another is to inform the economy minded and progressive men of the legislature, who have the proper attitude, to correct the "political arrangements". A clue to the third method is seen in the Milford Bay, Conn., area during the past summer. Information received from oystermen and other sources there shows that the setting during the summer failed completely. In Milford Bay only one spat was found during the entire summer.

Satisfactory explanations for this can not be given. A study of environmental factors such as temperature change, salinity, precipitation, direction and velocity of winds, and the like have not indicated anything that should distinguish this summer from good seasons. Oyster larvae are extremely selective in their foods, being unable to utilize most of the microscopic forms of food organisms. Mortality of larvae due to diseases has been observed in laboratories. Two other possibilities are that the larvae were eaten by their enemies or that unhealthy





FOR THE NEW BEDFORD SCALLOP FESTIVAL DINNER: One of the 40-pound bags of sea scallops, donated by each scallop boat for the festival dinner, is passed to L. Vernon Drape, scallop wholesaler, by Alphonse Amiro skipper of the New Bedford vessel "B. Estelle Burke". Right: Capt. Mangus Thompson and Capt. Issac Norton aboard their boat "Edgartown", docked next to the festival tent, and two of the many visitors who toured the craft during the New Bedford Scallop Festival in August.

conditions of the sea water which are not fully understood, caused the larvae to die.

The third manner in which to eliminate such conditions is to development of new method of production that is modern and can be adapted to the growing and extreme needs of the oyster industry. Such a method—pond oyster farming—has been found. Oyster farming is distinct and separate from oyster planting, though some of the same methods are used. "Brood oysters" (parents) and clutch (for the baby oysters to hold on to) are introduced into a pond about three feet deep, filled with brackish water. This is not a tidal pond.

Chemical and biological conditions are measured in the pond and corrected to promote the growth of certain microscopic marine animal and plant forms and to hinder growth of damaging forms of plankton. Biological conditions must be maintained in the ponds for maximum health and growth of oysters. These conditions change with the age of the shellfish.

Ponds Used for Hatching and Growing

The ponds can be used for both hatching and growing. The shells can be planted along with mature oysters and when the oysters spawn, the young can be transplanted to the growing ponds where their maturity in a short time is assured. Pond oyster growth rates are generally faster than natural growth rates. Mortalities are usually lower since conditions, pests, and parasites are controlled. Production per acre is logically higher than natural production. Pond production is about 2,000 bushels per acre. In Maryland the best average is 10 bushels per acre.

It is felt by some that, once oyster farming methods are established and proven, land which now has little value will be in demand. In many cases it could be made accessible to vehicular traffic allowing shells to be hauled by truck and mature oysters taken to the packing houses the same way. Packing houses could be built and operated close to the oyster farms.

An estimate of the cost of oyster farming has been made on the basis of a three year crop of 2000 bushels per acre. Cost of digging one acre pond three feet deep, $300; Cost pump to flood and empty pond, $300; Gravel to firm pond bottom, $300; Miscellaneous, $100; total per acre per pond, $1,000 permanent investment.

Cost of brook stock (5 bu.) and clutch (2000 bu. oyster shells) $200; Cost of pond inspections and testing, $900; Cost of pond chemicals, $600; Cost of pond plumbing, $300; miscellaneous, $400. Total per acre for three years, $2,400.

Production for three years is 2000 bushels worth $3.00 per bushel. Gross sales, $6,000; Harvesting (50 cents per bushel) $400; Operating costs, $2400; Interest cost, (6 per cent for 3 years on $3,000), $540; Miscellaneous costs $200. Total costs, $3,540. Gross sales, $6,000. Net profit (exclusive of taxes) for three years, $2,460. That is an annual return on the investment of 27 percent.

With the establishment of oyster farming, a surer supply will be available. Steady production of so many bushels per acre can be expected. The possible damage by storms will be less. The oysters' natural enemies can be controlled. It will take a few years to develop the farms and packers will have to depend on oysters taken from natural rocks for a time. But, oyster farming is nothing new. It has enjoyed wide acceptance in foreign countries and its virtues have been proven in a number of United States biological laboratories.

New Bedford's First Annual Sea Scallop Festival is Success

Under the chairmanship of Charles E. Sharek and Octavio A. Modesto, New Bedford's first annual Scallop Festival, held Aug. 8 and 9, proved itself a success as it drew unexpected numbers. Final figures show that more than 8,200 persons from the United States, Canada, and Hawaii were served scallop dinners as an estimated 15,000 people visited Marine Park on Popes Island during the affair.

Besides the scallop dinners, other festivities highlighted the occasion, including a band concert, a beauty pageant at which Carolyn Skeie, daughter of local fisherman, Andrew S. Skeie, was chosen queen, boat rides, marine exhibits, and a tour of the New Bedford Scalloper *Edgartown*.

"We have fulfilled our purpose of spotlighting the New Bedford sea scallop industry," Sharek said. All profits realized from the venture will benefit the youth activities fund of the New Bedford Exchange Club.

NORTH ATLANTIC

Maine Co-operative Plant Planned at Rockland

The much-publicized case of the United States vs the Maine lobstermen came to an end in Portland last month when the Maine Lobstermen's Association and its president Leslie Dyer of Vinalhaven entered into a consent decree with the government. The result was a permanent injunction against them from setting up trap hauling boycotts and price fixing agreements.

Following the conclusion of the court action the Maine Lobstermen's Assoc. Co-operative Inc. was formed and Dyer negotiated for a site for a Co-op lobster plant in Rockland. He also went to Southwest Harbor where fishermen had asked for a branch plant as soon as possible.

After filing of incorporation papers the co-op will be in a position to offer stock to MLA members and start actual operation with funds received from stock sales. Stock was to be offered to Maine Lobstermen's Association paid up members at $10 per share of common stock. The number of shares was not to be limited, but a member will hold only a single vote regardless of the number of shares held.

Preferred stock will be offered to the general public at $100 per share with a six per cent return guaranteed.

The papers filed for the cooperative showed Leslie Dyer of Vinalhaven, president; Harold Lenfesty of Beals Island, first vice president; Rodney Cushing of Cliff Island, second vice president; Alfred Fredette of Owls Head, treasurer and A. Alan Grossman of Rockland, corporation clerk.

Directors are Raymond Smith, Jonesport; Warren Fernald, Islesford; Robert Davis, Port Clyde; Vernon Bryant, Round Pond; Henning Thomsen, Portland and Justin Foss of Cape Porpoise.

Lobster Market Firm at Portland

An early Newfoundland lobster season resulted in a firm shedder market in Portland, Me., early last month. Without competition from the Newfoundland catch, which bothered local lobstermen last summer, the present shedders bring the lobstermen between 40 and 50 cents a pound.

New Equipment on Maine Boats

Hubbs Engine Co., South Portland, Me., recently supplied a 3-71 General Motors 110 hp. Diesel to Capt. Willard Taylor of Kennebunkport, Me. for his new 34'6" x 10'6" x 3' combination lobster and party boat *Collette*, built by Baum's Boatyard, Kennebunkport. The sardine carrier *Patrol*, owned by Booth Fisheries of Eastport, has been repowered with a General Motors 6-71 "Economy" Diesel, rated 170 hp. 1800 rpm.

Capt. Charles Witham of Kittery Point, Me. has repowered his lobster boat with a new Chrysler Crown 125 hp. engine from Hubbs. The same model engine has gone into Capt. Edward Simpson's new 30' lobster boat of Bath, which was built by Ronald Rich. Capt. Robert MacVane of Cliff Island has installed a new 95 hp. Chrysler Ace engine in his lobster boat.

Recent sales by Harbor Supply Oil Co., Portland, Me. include 115 hp. Red Wing Meteor engines to Capt. Malcolm Whiddon, Jr. of So. Harpswell, Me., with Paragon 2:1 gear for his 30' lobster boat; and to Capt. Donald Rich of Portland for his 42' lobster boat, with 2:1 Paragon hydraulic gear. Allis-Chalmers 6 DAMR-273, 85 hp. Diesels have gone into Capt. Roland McFarland's new lobster boat at South Bristol, with 2:1 Snow-Nabstedt reduction gear; and Capt. Harry McClain's 28' lobster boat at Pemaquid, which has a Snow-Nabstedt 1.5:1 reduction gear and 18 x 14 Michigan propeller.

Capt. Calvin Pomroy, left, and H. P. Simpson, Palmer engine dealer, Portland, Me. They are aboard Pomroy's 34' lobster boat "Helen G." of Cliff Island, which is equipped with new Model IH264, 135 hp. Palmer engine, Paragon 2:1 hydraulic reduction gear, Morse controls, Bendix depth indicator and Columbian rope. He fishes 300 traps.

Cummins Diesel of New England, Inc., South Portland, Me. recently installed a JN-6-M Cummins Diesel in the new 40' lobster boat "*Dodo*" owned by Capt. Wm. L. Crawford at Kittery, Me. The engine is rated 125 hp. at 2500 rpm., has 2:1 reduction gear and swings a 24 x 19, 5-blade propeller. The boat was built by Riley Beal of Jonesport.

The Harris Company, Portland, Me. has installed Bat Lavoie radar on the *Ruth-Mary*, sardine carrier, owned by Maine Marine Products; and on the carriers *Irma* and *Muriel*, owned by North Lubec Mfg. & Canning Co. A Bendix DR-12 depth recorder has been installed on the Portland dragger *Andarte*.

Among recent installations of Palmer engines by H. P. Simpson, Portland, Me. have been Model IH264, 135 hp. engines for Capt. Calvin Pomeroy's 34' lobster boat, *Helen E.* of Cliff Island, and Capt. George Cushing's 35' lobster boat *Althea* of Portland, both fitted with Paragon hydraulic 2:1 reduction gears; and Capt. Elliott Cushing's 34' lobster boat *Merle* of Cliff Island, with Paragon 2:1 mechanical gear.

Two new 35' lobster boats, built by Harold Gower of Beal's Island, have been powered with Palmer engines by Simpson: Capt. Hartley Brewer's lobster boat of Chebeague Island has a Model IH308, 150 hp. engine with Paragon 2:1 hydraulic gear, and Capt. Henning Thompson of Portland has a Model IH264, 135 hp. model with Paragon 2:1 mechanical gear in the *Elaine Carol*. Capt. Lyman Mathews of Cape Porpoise, has purchased a new Model IH240, 120 hp. Palmer engine, direct drive, for his lobster boat.

Boats recently hauled by Story Marine Railway, South Portland, Me. include the Portland dragger *Currier*, owned by Harold Gowen, and skippered by Capt. Toirow Tavainen, which had her bottom caulked and painted. The 75' dragger *Lawson*, owned by J. J. Lawson of Hampton, Va., obtained a new 3½" Tobin Bronze shaft and Goodrich Cutless stern bearing, as well as new hull sheathing.

Connecticut Man To Assist in Oyster Ground Inspection

The U. S. Shell Fish Commission was scheduled to make its annual inspection of the Long Island Sound oyster grounds on September 9.

Accompanying the commissioners making the inspection trip was Capt. Israel M. Jacobs of Stonington, one of the Connecticut members of the Atlantic States Marine Fisheries Commission.

Massachusetts Strives For Accident Prevention

John F. Linehan, general manager of the New Bedford Seafood Producers Assoc., in a letter to Vice Admiral Alfred C. Richmond, of the Coast Guard, Washington, D. C., asked that safety practices should be instituted by steamship companies to prevent further accidents on the fishing grounds. A possible solution is to have the steamship lanes established about 20 miles to the south of the Georges Bank-Nantucket line, or at least outside of the 50 fathom contour lines of those areas.

Mr. Linehan's action followed the near collision of two New Bedford boats the *Lubenray* and the *Sea Rambler,* with a fast moving freighter. In July the *R. W. Griffin* was rammed and sunk by a freighter with the loss of three lives. Collisions between vessels and the large freighters might also be the answer to the disappearance of a number of New Bedford vessels that have been lost with all hands aboard, it was reported.

Meanwhile, in Gloucester the 52-vessel Whiting Association expressed its fear of possible injury to pleasure craft operators on the Annisquam River with its growing traffic problem.

Spokesman for the 260-man association was Rosario Testaverde, captain of the 53-ft. whiting dragger *Linda B.* and a commercial fisherman for 22 years.

What worries him most is the failure of the pleasure craft owners to realize the dangers associated with the heavy traffic that now moves along the river.

Boston Boats Get New Radar Units

Louis Posner Marine Radio of Boston, Mass. has installed Bat Lavoie radar 10 inch units on three Boston trawlers, for which George Davidson is Port Captain. They are the *Jane B.,* Capt. Tom Fowler; *Rosa B.,* Capt. Victor Green; *Patty Jean,* Capt. Faunce Leadwell. A new model 40 kw., 40-mile maximum range Lavoie radar has been installed on the trawler *Wisconsin,* owned by Roen Transportation Co., with Ben Larson as Port Captain.

Posner has installed Bat Lavoie 5 inch radar units on the *Rose & Lucy,* Capt. Phillip Parisi; and *Doris F. Amero,* Capt. Joe Novello, both of Gloucester.

Bureau Commercial Fisheries Appointment

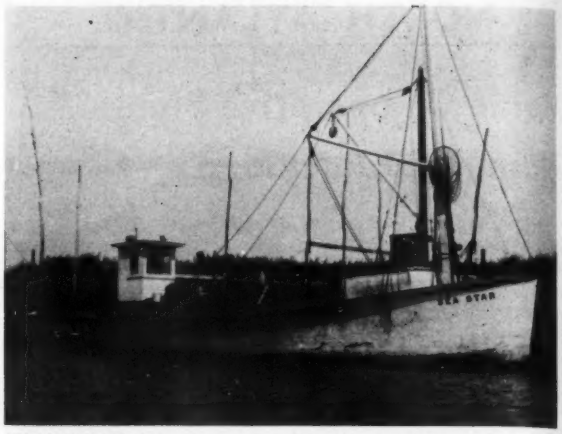
The transfer and promotion of Russell T. Norris to the post of Assistant Regional Director, Bureau of Commercial Fisheries, with headquarters in Gloucester, Mass. has been announced by the Bureau's North Atlantic regional office. The appointment is in line with the national reorganization plan of the U. S. Fish and Wildlife Service.

Norris, a native of Newburyport, Mass., has been with the Fish and Wildlife Service in the Boston regional office for the last 12 years. In his new assignment Norris will assist in the direction of the Bureau's operations in the 13 northeastern states extending from Maine through Virginia. There are 35 field installations in the region with two ocean going research vessels and about 20 smaller vessels in full time operation.

Gloucester Landings Heavier

During the latter part of August heavier ocean perch landings were recorded and whiting landings were slightly greater than the same period a year ago, at Gloucester, Mass.

Industrial fish landings more than doubled the previous week's landings, but they were one million pounds under landings of a year ago. Two spotting planes collided while guiding Gloucester seiners to a school of bluebacks near Plymouth, Mass. Three men died in the crash. Since these planes will not be immediately replaced, lighter industrial fish landings are expected in September.



"SEASTAR" 39' belonging to Joseph Adubato, Belford, N. J. is used for trap fishing in the Sandy Hook Bay and Raritan Bay areas. She is powered with a Chrysler Crown engine with Walter V-Drive.

Gloucester Loses Two Draggers

Two Gloucester, Mass. fishing draggers were lost last month, but without the loss of any lives. On the 12th the 60-ft dragger *Little Sam* sank south of No Man's Land. Capt. Frank Foote and his sons Francis and Ronald E. and one unidentified fisherman took to the dory as the vessel went down.

The second vessel to go down was the 75-ft. Gloucester dragger *Star of the Sea,* Capt. Pasquale Palazzolo which went down 35 miles east northeast of Race Point, off Provincetown.

According to the dragger *Mary Rose,* 16 miles away at the time, an intercepted radio message reported that the ill-fated dragger had torn out her shaft causing her to flood.

The captain and crew of four Gloucestermen took to the dory and were rescued by the *Mary Rose.*

"Little Flower" of Gloucester Repowered

Gloucester's 65' x 16' x 7.5' whiting and ground-fish dragger, *Little Flower,* co-owned by Capt. Sebastiano Serio and engineer Michael Frontiero, was recently repowered by a Model 8DATMR-1125 turbo-charged Allis-Chalmers Diesel. Sold by Allied Diesel Sales & Service, Inc., Boston, the engine was installed with steel beds by Harvey Gamage, Shipbuilder, South Bristol, Me., who built the vessel in 1949. It replaces an 1879 Buda Diesel.

The new engine has a continuous rating of 255 shaft horsepower at 1600 rpm., and is fitted with a Capitol HYC 3.88:1 hydraulic reverse and reduction gear, Cotta 2:1 front power take-off with a clutch, and Morse marine flexible coupling. It swings a 52 x 36 Columbian Bronze Style I Hydrosonic propeller, giving a speed of 12 knots.

Allied Diesel has sold a Model 6DAMR-273, 85 hp., 2800 rpm. Allis-Chalmers Diesel with Capitol 2.5:1 hydraulic reduction gear, for a new 40' lobster boat being built by Blakely Boat Co., Danvers, Mass. The boat is owned by Edgar Bruggink and will fish out of Beverly, Mass. John H. Young recently joined Allied Diesel as sales engineer.

John DelTorchio

John Deltorchio, president of Cape Ann Fisheries, Inc., Gloucester died last month at the age of 62.

He first entered the fish business with Anthony Cooney in bait selling under the name of A. Cooney & Son. When Mr. Cooney died, Ben Smith recommended that DelTorchio be appointed manager.

The firm prospered under his management and became known as the Cape Ann Ice & Cold Storage Co.

DelTorchio was a pioneer in ocean perch filleting, and a large fleet of Gloucester draggers supplied his firm with redfish, which is marketed as ocean perch.

He was the first president of the Gloucester Fisheries

Assoc. and later became a leader in the National Fisheries Institute. He also was one of the leading spokesmen for the industry at tariff hearings in Washington, D. C.

Yellowtail Catch Best in Years

The yellowtail catch in New Bedford, Mass. during July was the best in 10 years and exceeded July 1957 landings of the specie by 1,500,000 pounds.

Large schools of swordfish in nearby grounds prompted many of the trash fishermen to convert to swordfishing. More than 750 swordfish were landed in New Bedford during July, and several of the boats landed as many as 75 in a week.

Record Tuna Catch For Provincetown Boat

The 70-ft. dragger *Silver Mink*, Capt. Manuel Phillips of Provincetown, Mass., docked at Barnstable on August 28 with the largest single day's catch of tuna on record on the east coast by one boat—70,000 pounds of bluefin tuna with an average weight of 100 pounds each.

The *Silver Mink*'s crew of nine included two professional California tuna seiners. Earlier in the month the vessel arrived at Provincetown with a catch of 20,000 pounds of tuna.

Massachusetts Dragger Burns and Sinks

The 47-ft. fishing dragger *Margie L.*, Capt. Nelson Ostman of Oak Bluffs, which was damaged by fire 20 miles southeast of Nomansland last month suddenly sunk in 59 feet of water while being towed by a Coast Guard patrol boat.

The dragger's four-man crew was rescued by another Vineyard fishing vessel the *Three Bells*, Capt. Thomas Tilton, a half hour after the engine room fire broke out.

The *Margie L.* was owned by Edward Krikorian of Vineyard Haven. He purchased the vessel about two years ago and said the craft had recently undergone extensive improvements.

Rhode Island Fishing Boat Salvaged

The 48-ft. fishing boat *Maureen* which sank off Bailey's Beach, Newport on May 17, unexpectedly came to the surface on August 5 after the salvage crew which had been working intermittently for three weeks had about decided to stop work for the day.

Buoyed up by two 2,000-gallon steel drums lashed to the ship with steel cable and two inflated rubber pontoons placed inside the hull, the ship was towed into Newport.

The *Maureen* is owned by Gilbert M. Brownell of Middletown and sank when her heavy load of trash fish shifted in the hold because of heavy seas. The boat careened to one side and the rear hatch cover was torn off and water started pouring into the hold. The boat sank within an hour and a half and the crew escaped in a dinghy.

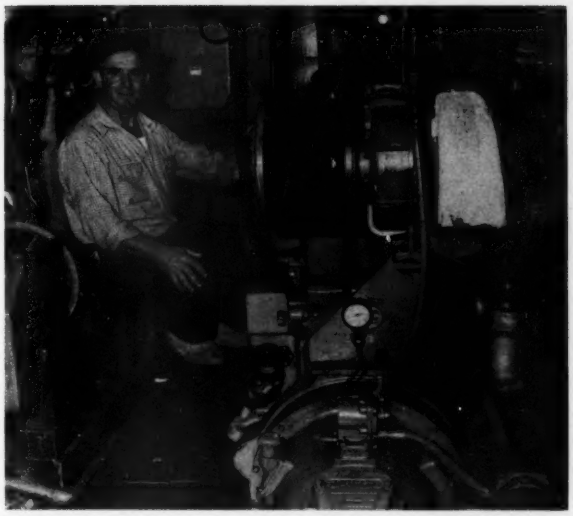
Delaware Fisheries Lab to Run All Year

The Marine Fishery Laboratories at Lewes will operate on a 12-month basis instead of only three months, it was announced last month. This will be the first year that the laboratory has operated year-round.

At a recent meeting of the laboratory staff, plans were discussed for future projects and it was announced that now that the lab is operating twelve months a year, it will be possible to gain important information on fish and fish conditions in the bay and ocean off Delaware.

N. Y. Man Gives Talk on Starfish

Joseph B. Glancy, head of Shellfish, Inc. of West Sayville, N. Y. gave a talk in Greenport last month of the trouble to the oyster industry at present caused by the heavy set of star fish which are one of the worst enemies of oyster growing.



Michael Frontiero, engineer and co-owner of the Gloucester, Mass. dragger 'Little Flower", and the vessel's new 255 hp. turbo-charged Allis-Chalmers Diesel with Capitol 3.88:1 hydraulic reduction gear, sold by Allied Diesel Sales & Service, Inc.

According to Glancy, star fish travel about 600 feet over night, curling up into a ball-like mass and drifting with the current over the oyster beds and devouring the oysters.

Mr. Glancy reported that there is every prospect for a good set of oysters this year, which would be of great financial assistance to the industry which has suffered from the lack of oyster set for the past few years.

Harpoon Smallest Swordfish

Capt. Ludwig Fiedler and mate Julian Fiedler of the fishing boat *Nora* returned to Greenport, N. Y. early last month with the smallest swordfish harpooned on record. The fish, which weighed only 34 pounds, was four feet eleven inches long. In addition to the record small swordfish, the *Nora* had on board 14 other big swordfish, weighing about 2800 pounds in all. The fish were harpooned off Martha's Vineyard.

New Jersey Clammers Seek Removal of Clam Ban

Early last month Cape May County Board of Freeholders extended an offer to help to return clamming as a major county industry after it had been virtually eliminated by a State Board of Health ruling closing clamming waters in the county because of pollution.

The offer came following a request for aid from George Tozour, a clammer from Cape May Court House, who told the freeholders that the pollution edict was putting more than 100 clammers out of business.

Later in the month the clammers won the first round of their fight against pollution when the owner of a disposal firm was fined $35 for dumping polluting materials along the banks near clamming areas.

New Jersey Plant Nearing Completion

Work was nearing completion last month on a new building at Otten's Harbor, Wildwood, which is to be used as a frozen fish processing plant, with the activity scheduled to get under way sometime next month.

The firm, called the New Jersey Seafood Products Co., Inc., will employ 50 persons at the start, and the peak may reach 300.

The plant will package frozen fish, scallops, crab meat, prepared for cooking and serving, and will operate the year around.

SOUTH ATLANTIC

Maryland Plants Preparing for Opening of Oyster Season

Maryland seafood packers were getting their plants ready early last month for the opening of the oyster season on September 1. Tonging for oysters starts in some sections on the first, while in Somerset County it does not start until the 15th.

The prospects for the 1958-59 season were not definite last month and it is believed that tongers will go to places where they caught oysters last year. But, they will also try other areas which haven't produced many oysters for some time, hoping that the supply of shell oysters will be bigger and better than last year.

Oyster packers are hopeful that prices for oysters will be in line with last season's prices, from $2.00 to $4.00 a bushel, depending upon quality and yield.

Maryland's production of oysters last year dropped slightly while that of clams increased.

The state has maintained its usual rate of shell and seed planting this summer, scattering about 1,500,00 bushels of shells and more than 100,000 bushels of seed oysters on the public beds.

In addition, the department has augmented the shell plantings with about 25,000 tons of slag to see how oysters will set on the hard cinder-like material.

Maryland Tongers Plan Clean-up

Some 75 tongers who operate in the Little Choptank River met last month to plan a "clean-up or close-up" campaign, in order to save an industry which they value at $1,000,000 a year.

A committee of three tongers headed by Milford Elliott of Casons Neck was appointed to personally visit each of the violators to explain the situation. These violators are property owners whose sewage systems are not functioning properly and as a result the river is polluted.

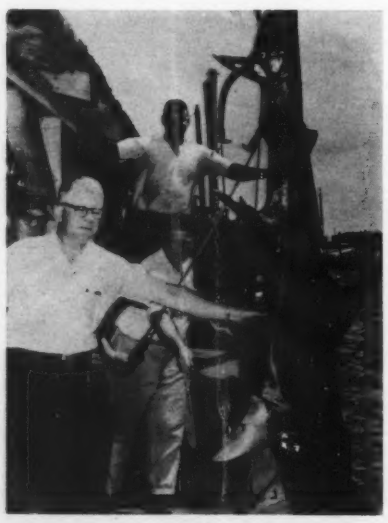
The health department does not want to close the river, but said that it might be necessary if the proper steps are not taken to correct the situation. Late last month there were 59 known violators and the health department stated that if all of the 59 put in improved systems before October 1, the river would remain open.

Maryland Studying Cause of Crab Deaths

State scientists last month began investigating the death of hundreds of pounds of crabs in the Tangier Sound area of Chesapeake Bay.

Crabbers from Smith Island reported a high mortality among catches in their crab pots and the death of fish and other marine life. They said the water had a reddish or brown color most of the week.

The crab losses may have been caused, it is believed, by some micro-organism in the water which blooms when certain conditions are just right.



Wilbert (Scobie) Caulbourne, Clarence Long, and Sylvester Sutton displaying the 400 pound, 10 foot shark caught recently near Crisfield, Md.

Maryland Gets New Patrol Boats

Three new high-speed patrol boats were delivered last month to the Tidewater Fisheries Commission for use in enforcing the state's fisheries laws.

The new boats, Diesel-powered with twin screws, are named the *Harford, Charles* and *Cecil*. They are modeled after torpedo boats and will do more than 30 knots an hour. Capt. Joe Davis of Rock Hall will command one of these new boats.

Maryland Fishermen Catch Shark

A shark weighing 400 pounds and measuring 10 feet was caught by Crisfield fishermen while haul-seining in the Big Annamessex River. The shark was landed after an hour-long struggle by Clayton Howard, Otis Linton, Frank Esley, Jerry Linton, and Albert Culbertson fishing on the power-boat *Franklin E.*

The men noticed something large stirring up the mud and sand at the bottom of the net and thought it was a large drum fish. They soon learned otherwise when the shark's "hachet" appeared above the water. After gathering in the net as much as possible, Howard shot the shark with a harpoon and it was soon landed. The shark is said to be the biggest thing to come out of the water here in years.

North Carolina Man Returns from Pakistan

Gerald B. Talbot, chief of Middle Atlantic Fisheries Investigations at the Fishery Research Laboratory, Beaufort, has returned from a mission to Pakistan on behalf of the FAO.

Mr. Talbot went to Pakistan to advise the Government on fishery research activities, particularly leading to the management of the great Hilsa fishery.

Hilsa is a very similar to the North American shad and represents about 30 percent of the fish landed in Pakistan. More than a million fishermen are engaged in the Hilsa fishery of the rivers of the Ganges Delta system and they catch approximately 500,000,000 pounds per year.

The great problem is the fluctuation in catches—caused by catching too many fish one year and not enough another, both situations affecting spawning.

New dams have been built which cut off two-thirds of the length of the river where Hilsa normally spawn. The fishways installed are wrong in design and construction and fish cannot pass up them, so they are shut off from 200 miles of the river. Talbot has submitted new designs for fishways to the Government of Pakistan.

Beaufort, N. C. Lab Designs Fishway

Both the Senate and House recently voted funds for a fishway at Little Falls Dam in the Potomac River, a short distance upstream from the nation's capitol.

By opening another eight to ten miles of lower Potomac River to spawning runs of striped bass, shad and alewives, the fishway could increase the annual value of commercial and sport fisheries by $450,000.

The Beaufort Fishery Laboratory was given the responsibility several years ago of designing a fishway for the proposed Little Falls Dam. A scale model was constructed at the laboratory from which plans for the actual fishway were formulated.

White Shrimp Return to South Carolina

The popular white shrimp—long considered a delicacy by many South Carolina families—are beginning to show up in tidal creeks after being almost exterminated by last winter's bitter cold.

Cast-net fishermen in the Lowcountry area were ex-

pected to begin catching increasing numbers of the small, sweet shrimp about the middle of last month. The commercial catch in larger rivers and bays was not expected to become heavy until the middle of this month.

South Carolina Shrimpers Protest Target Ranges

South Carolina fishermen are deeply concerned over a proposal of the Marine Corps to set up jet target ranges in the middle of their shrimping grounds.

The two locations proposed for this target range are the Devoux Bank and Otter Island in St. Helena Sound. Robert Lunz of the Bears Bluff Laboratory has insisted that the target range could be placed in the "buffer zone" of the Savannah River Atomic Energy Plant, so as to prevent damage to the fishing industry in South Carolina.

The North Carolina Fisheries Assoc. has also written Congressional representatives regarding this hindrance to the shrimping industry, which could show its effect on North Carolina as well.

South Carolina Crab Deaths Natural

A number of dead crabs, washed up on the Isle of Palms beaches recently were checked by the Bears Bluff Laboratory on Wadmalaw Island and found to be normal aftermath of annual spawning.

G. Robert Lunz, director of the lab pointed out that the unusual cold last winter and spring had delayed the normal February spawning cycle.

The current crop of crabs is an abnormally large population and Lunz stated that the total crab haul in South Carolina waters was already over four million pounds, twice the normal catch.

Georgia Issues Order Affecting Shrimpers

In announcing the Georgia State Game and Fish Commission's issuance of an order barring shrimpers from traveling within half a mile of the Jekyll Island beach, David Gould, a commission spokesman, said it represented the first time the state has closed an off-shore body of water to shrimpers.

The action was taken because of reports of small shrimp running less than the state minimum and not because of the Jekyll Island State Park Authority's criticism of boat interference with bathers.

Georgia law permits the state to close any body of water as a conservation measure when shrimp sizes are under minimum. The ban was issued to remain in effect until a court shows that sizes are again above the minimum.

Florida Has New Ruling on Closing Shrimp Beds

A new regulation governing closing of shrimp beds to prevent the taking of baby shrimp was adopted recently by the Florida State Cabinet Board of Conservation.

The action was necessitated by a ruling by Circuit Judge Hugh Taylor which voided a former regulation which permitted the state conservation director to close certain beds on his own initiative when he thought the shrimp were too small to be taken.

Judge Taylor ruled that the Cabinet Board of Conservation has the authority to close waters to shrimping when the shellfish taken are under the legal size limit, but that the former regulation unlawfully designated this power to the director.

The new regulation stipulates that when the director causes samples to be made in 10 or more selected areas in any one county with nets the same size as used by commercial fishermen and the average size of the shrimp taken is less than the legal limit, the director shall post notice of his finding in the courthouse and furnish copies to the county judge and the county prosecutor.

Twenty-four hours after its posting the statement shall be prima facie proof that the shrimp taken in the area are undersized.

THE 57' "GENEVA MOORE" is used for shrimping by Miss Pauline Jatho Magwood, Charleston, S. C. and has a D8800 Caterpillar Diesel that turns 38 x 30 propeller through Twin Disc 2:1 reduction gear. She includes Delco batteries in her equipment and is finished with Pettit paint. Gulf fuel and lubricating oils are used.

A shrimper arrested for shrimping in an area where the director has posted notice the shrimp are undersized will have the burden of proving in court that his catches were not under the legal size.

Good Florida Snapper Season

Three snapper boats operating out of Dixie Fish Co., Fort Myers Beach have had a good season thus far. The *R. W.*, Capt. Danny Martin, in six trips since the early part of April, has brought in more than $12,000 worth of snapper. Other boats operating out of this wholesale-retail fish outlet are the *Southern Gale*, Capt. Charles Hawkins, and the *Compromise*, Capt. Hans Willadsen. Chief markets for snapper brought into Fort Myers Beach are Miami during the winter months, New York, New Orleans and Birmingham, Ala., during the summer months.

Snapper boats, running about 42 feet represent an investment of $10,000 to $12,000. They are equipped with electric fathometers and go directly to the fishing grounds whereas a few years ago it was necessary to spend considerable time searching for these popular fish which are caught trolling with cigar minnow bait.

Florida Shrimp Harvest Ranks Second

Florida is next to the top among the nation's producers of shrimp after running third for several years. In 1957 Florida produced nearly 30 million pounds of shrimp, heads off. Texas led with 45 million pounds, and Louisiana was third with 18 million pounds.

Production of Florida increased rapidly last year, beginning in Tampa Bay, near Egmont Key. Several trawlers, based at Key West, made an experimental haul while passing by the area. When their nets came up groaning with shrimp, they decided to stay awhile. In a short time, 70 other boats joined the fun and began bringing in catches of 3,000 pounds or more per trip.

Later in May two other towns began catching shrimp in great quantities—Apalachicola and Tarpon Springs. When the big strike of shrimp was announced at Apalachicola, boats from as far west as Louisiana came and soon a fleet of some 150 boats were catching shrimp. One boat brought in 15,000 pounds from three days of fishing.

To Tarpon Springs, the shrimp is the greatest thing since the sponge of yesterday. After some lean sponging years, Tarpon Springs had about decided to live on seashells and tourists, but then came the shrimp. Soon 100 vessels were plying the waters off Anclote Key, 20-30 miles from shore. Three-man crews dragged the bottom for as many as 70 hours at a stretch. Bill Richardson, manager of Pinellas Seafood Co., Tarpon Springs, said his company has been handling nearly 30,000 pounds a week.

The famous Tortugas beds are still producing many shrimp and during the week ending August 15 74,400 pounds of shrimp were produced. This yield, combined with 22,600 pounds of shrimp from farther-off Campeche and Nicaragua beds, put a total of 97,000 pounds of shrimp on Key West docks. During the same period last year a total of only 48,000 pounds were landed.

THE "MISS ANNIE T" 67' shrimper is owned by Westshore Shrimp Tampa, Fla. Built by Diesel Engine Sales Inc. St. Augustine, Fla., she is powered by a Caterpillar 150 hp. D-342 with 3:1 reduction gear turning a 50 x 34 Federal propeller. Included in the equipment are Goodrich Rubber Cutless bearing, Ritchie compass, Stroudsburg hoist, and Columbian rope.

Florida To Study Shrimp Parasites

A five-year study of shrimp parasites by the Florida State Board of Conservation has been financed by a grant of more than $39,000 from the Public Health Service of the National Institute of Health.

The money goes to Dr. Robert F. Hutton, in charge of the board's marine laboratory at St. Petersburg. Assisting him in the research program will be biologists Dr. Franklin Sogandares, Bonnie Eldred and Kenneth Woodburn. The investigation will try to discover how seriously parasites affect the commercial catch of shrimp.

It is assumed that shrimp parasites feed also on other forms of marine life and this angle will be given thorough study.

Dr. Hutton said that a complete understanding of the diseases and parasites of shrimp will greatly advance the knowledge of this valuable resource.

Work Started on Florida Hatchery

Work on a $200,000 rehabilitation project at the Fish & Wildlife Service installation at Welaka has been started. Five new buildings will be constructed, four of them for storage and one a new office building which will contain laboratories for studying production of ten million blue gill and black bass fingerlings the hatcheries produce annually. New fish hatchery beds have also been completed with eight of them already in use.

Florida to Remove Shoals in River

As soon as Congress loosens some purse strings, the U. S. Corps of Engineers is prepared to go ahead with a project to remove shoals from the Caloosahatchee River channel from Edison Bridge to the Gulf of Mexico.

Last spring two or three shrimp boats went aground in the channel at low tide. A move was started then to have the shoals removed and to have the channel deepened to 12 feet.

Some shrimp industry spokesmen believe the shoal condition is getting worse. The project is expected to cost under $50,000.

Virginia to Further Study Dredging of James River

The State Fisheries Commission late last month continued to argue for further studies of the James River before any dredging is approved and at the governor's request officials from three different agencies boarded the yacht Sea Level for a tour of the lower James River, where the much-disputed oyster beds lie.

The fisheries commission is satisfied that there would be some damage to the seed oysters should the river be dredged another 10 feet for a 35-foot channel. The commission estimates the industry to be worth some $30 million per year to the state.

Charles M. Lankford, chairman of the fisheries commission said the type of study he has in mind would be a hydraulic model study, costing possibly $300,000. The study might take two years, but he feels that considering the overall value of the oyster industry, that would not be too long.

Fish and Seafood Parade To Spotlight Industry

An industry-government program to direct the attention of the consumer to the uses of fresh and frozen fishery products this fall will again have the support of the Bureau of Commercial Fisheries. The program, entitled "National Fish 'n' Seafood Parade", is spearheaded by National Fisheries Institute. The purpose of the national observation of such a week is to promote the use of fishery products and to help the housewife become better acquainted with all varieties of fish and seafood.

A National publicity and promotional campaign is being planned by the National Fish and Seafood Committee. F. M. Bundy of Gorton's of Gloucester, Gloucester, Mass., is chairman of the committee conducting the promotion known as the Fish Parade and Fish Week. Aiding Bundy are Irving Usen, O'Donnel-Usen Fisheries Corp., Boston, Mass., chairman of the finance committee and Harold Luther, Norwegian Frozen Fish Co., Ltd., Jersey City, N. J., chairman of the program committee.

Meetings of brokers, fish dealers, distributors, merchandising managers of super markets, etc., are being encouraged on the local level, in order to point up the value of the campaign.

In carrying out the promotional campaign, recipe leaflets are being distributed at government expense to supermarket chains, wholesale grocers, newspaper food editors, and radio and television stations. Spot announcements for radio and TV are being prepared and special flyers featuring the use of seafood for institutions, restaurants, and schools are also being distributed.

The 1958 promotion is the fourth all-fishing-industry promotion. Reports received from food industries indicate that the fisheries have definitely established a fall selling season, and many other food organizations are cooperating by tying in their products with fish and shellfish during the Fish Weeks.

Crab Deaths Caused by Lack of Oxygen

Deaths of crabs in pots have hurt Virginia's crab industry recently and biologists at the fisheries laboratory at Gloucester Point say that the kills have been caused by lack of oxygen in the water.

In summer, the deeper waters of Chesapeake Bay and the lower parts of some of the larger rivers become almost stagnant, and the oxygen dissolved in these waters is used up rapidly by animals and bacteria. This summer the situation has been worse than ever before.

Experimenting with Trash-Fish Plant

At Chincoteague Island on the Eastern Shore, two men have set up an experimental trash-fish processing plant. Because of fishing conditions which make the supply uncertain, it will not expand until prospects improve. The community, a farming district with many going in for chicken raising, can use the entire production of fish meal from the plant.

PACIFIC COAST

Special International Commission Meeting

The International North Pacific Fisheries Commission held a special meeting of one of its sub-committees at Honolulu in August. The special committee met in preparation for important decisions to be made by the whole commission at its annual meeting in Tokyo in November.

The Honolulu meeting was attended by commission members from Canada, Japan, and the United States. Under terms of the tripartite convention, salmon of United States or Canadian origin can not be fished by Japan in any areas east of a provisional line located approximately 175 degrees west longitude.

Salmon of U. S. origin in the Eastern Bering Sea may not be fished by Canada. Halibut and herring originating along the coast of North America may not be fished by Japan in specified areas of the North American Coast.

Abstention of these stocks will continue as long as the conserving countries make full use of the stocks and maintain full programs of research and conservation. However the commission must determine annually if the fish stocks meet the qualifications for abstention. The special committee's job is to iron out preliminary problems.

In a statement issued following the special meeting in Honolulu, delegates expressed belief that their sessions had been of value in clarifying the Pacific fisheries problems of the three nations involved. It is hoped that the clarification reported will extend to the Bristol Bay red salmon runs which have been heavily fished by the Japanese on the high seas.

The International Commissions scientific investigations have shown that while conforming to the letter of the treaty obligations, the Japanese have been taking large numbers of Alaska red salmon at sea to the disadvantage of the Bristol Bay fishery.

The problem has been a tough one for the International North Pacific Fisheries Commission. But, in the meantime, Japanese fishermen themselves, under terms of a private agreement have reduced their high-seas operations this year by keeping their fleet farther west and south of aras where they have been fishing in recent seasons.

The private agreement was reached by spokesmen of the Alaska salmon industry who went to Tokyo for that purpose. The Japanese Government has then, an example of international fisheries co-operation from its own fishing industry. This could have some weight with her official representatives on the International Commission when the question comes up for discussion at the Commission's November meeting.

California Sardine Fleet Makes Big Haul

For the first time since 1952, a large catch of sardines was made in Monterey Bay, and a dozen boats, brought in 450 tons on August 18.

While the schools were not as large as the vast schools in the early 1950's when scores of seiners would land thousands of tons a day, good catches were being reported daily.

With the fish dark just about over, the Monterey boats in 10 days of fishing had landed over 1,000 tons of sardines, nearly a fifth of the total 1957 catch.

The Monterey fishermen were also encouraged by one significant factor; the sardines were about 8 inches in length, in other words, not mature sardines which run 9 to 11 inches. The fishermen belive the young sardines now coming north in good schools were spawned in the warm waters of lower Baja California and Mexico where few seiners travel, thus allowing them to grow to full size.

THE 65' SALMON TENDER "ADVOCATOR", owned by Lee J. Makovich, Gig Harbor, Wash. is powered by a 100 hp. Atlas engine. She has a Danforth anchor and is finished with International paint.

It is also though that a change in water temperatures, now the warmest since 1952 and a change in food content in the water, all have brought back the conditions that favor the sardines.

The fishermen predict that 1958 should be a good year, and that most of the sardines will probably survive and should return next year, larger and more numerous, and thus produce even better catches.

Would Tax California Oyster Beds

The San Luis Obispo County Board of Supervisors, serving in the capacity of a Board of Equalization, is on record approving a tax on oyster beds in the State of California.

The oyster beds in Morro Bay, one of the county's newest industries, drew the attention of the board when the combined protests of Brown's Oyster Farm, the El Morro Oyster Co. and Allan B. Campbell, Jr. were submitted.

The protests were to the effect that the assessed valuation placed upon the beds was far too high for the actual worth of the products, largely because of the hazards involved.

The protestants said that no other California oyster beds ever had been taxed and that the beds in Humboldt County, reputedly the largest in the state, are tax free.

After considerable discussion, Supervisor Fred Kimball made a motion, which the board approved, allowing a settlement for half the original appraisal.

Record California Purse Seine Catch

A new high production in purse seine tuna fishing has been reached this year with a record catch of about 34,000 tons through August 21. Excellent fishing in the Mexican yellowfin fishery and the local bluefin fishery accounted for the new record purse seine catches.

The catch totaled 8,560 tons or 34 per cent above the 1957 catch for the same period and is 9,140 tons or 37 per cent above the most recent 5 year average through August 31.

These figures are especially significant considering the fact that the 1958 purse seine fleet is not as large as the fleet was five years ago.

The "Cee Bee", owned by George Bettencourt, El Granada, Cal., is a converted LCVP and is powered with a Chrysler 8 engine. She is used as a salmon troller and crab boat.

California Fishermen's Council Formed

Organization of the California Fishermen's Council for the purpose of furthering the interests of commercial fishermen and stimulating sales of fresh market fish has been announced at San Diego by C. M. Ghio, president of Star Fisheries.

The organization will apply for a charter next month. The council will be divided into two sections, one extending from Santa Barbara to the Oregon border, the other from Santa Barbara to San Diego. Each section will have seven directors.

It is estimated that 75 per cent of the state's commercial fishermen, exclusive of the tuna clipper crews, will comprise the council's membership.

San Pedro Enjoys Good Tuna Run

San Pedro, Cal. fishing continued to revive last month at a rate exceeding hopes of even the most optimistic fishermen.

Sparking the general prosperity in the fleet was one of the heaviest runs of bluefin in years, a run that was still continuing strong as August drew to a close. Good prospects for the coming sardine season and a fair albacore season also have helped to improve the local situation.

After record catches in July, local fishermen expected to taper off but over the weekend of August 8 the local fleet brought in over 2,000 tons. Another week of fairly good fishing followed and on August 15 another good school produced 300 tons. The local fleet also had good days on August 18 when 400 tons were landed and on the 19th when 450 more tons of bluefin were brought into port.

Most of the fish have been caught within 100 miles of port, thus enabling local seiners to make three and four day runs, saving considerably on normal expenses. Bluefin trips normally run two or three weeks before a vessel loads up enough to make the trip back to port.

The price has stayed firm and for the season the San Pedro seiners have landed nearly 10,000 tons of bluefin as compared to about 4,000 tons at this time in 1957. The bluefin fleet has earned about $2,500,000 more this year than at the same time last year.

San Diego Holds First Tuna Auction

On July 29, the new method of selling domestic caught albacore at auction was introduced in San Diego, Cal. The manager of a San Diego albacore trollers association offered two 50 ton lots of albacore at auction to tuna canners.

It is reported that these albacore tuna auctions will be held once or twice a week, depending on the volume available. The albacore sold at the first auction was from trollers still at sea, which will be dispatched to the high bid canner by radio phone.

Tuna Forecasting Possibility Studied by California Group

The Scripps Institution of Oceanography at La Jolla, Cal. has started a research program which may produce a practical method of forecasting for tuna. The research is being done by the Scripps Tuna Oceanographic Research Group under contract with the U. S. Fish and Wildlife Service. It is financed by a $500,000 grant obtained under provisions of the Saltonstall-Kennedy bill for fisheries research.

Heading the study is Dr. Maurice Blackburn, a fisheries biologist formerly with the Australian Department of Fisheries. Blackburn believes that there is a definite relationship between ocean winds, currents, and water temperatures and the presence and abundance of tuna. "We are working on bits of evidence that seem to indicate a pattern," he says.

Currents and winds, he believes, contribute to the level of thermocline, the boundary layer between warm, surface water and the deeper, colder water. Tuna fishing he says, is known to be better in areas where the thermocline is nearer the surface, providing an opportunity for the sun to spur the growth of food for fish in the underlaying cold water, which is rich in chemicals necessary for the growth of fish foods.

To develop these theories, Blackburn and his staff will gather a vast amount of information about winds, currents, water and air temperatures, and plankton distribution over a wide area of the Pacific. Obtaining this information by the fleet of research vessels operated by Scripps would be too costly, so Blackburn's group is using a small unmanned research boat which Scripps has developed for the Office of Naval Research.

About 30 of these small research boats will eventually be used in the tuna study. The boats are 16 feet long with fiber glass hulls. They are decked over to prevent swamping in open seas and carry a radar mast so that they may be easily spotted by ships which will visit them periodically to pick up instrument data, replace batteries, and haul the craft out of the water for cleaning and repairs.

The problem of anchoring the boats in the deep waters of the tuna fishing grounds was answered by a deep sea mooring system developed previously by Scripps for the Navy. Similar instrument stations have been moored in water up to 4,700 meters in depth and have ridden out heavy storms and gale winds without serious damage. The mooring employs a special, high tensile strength wire especially made for Scripps by Bethlehem Steel Co. A heavy weight such as an old railway car wheel anchors the boat to the bottom. The system uses several floats to bouy the line on the surface and prevent chaffing against the side of the boat.

Three boats have already been placed on station off the coast of Baja California, Mexico. More will be placed in position this fall. In addition to information gathered by the unmanned research craft, Scripps research ships will make cruises in the tuna fishing grounds to study animal and plant life and the abundance of tuna at various seasons.

"It's a long shot," Blackburn says of the forecasting project, "but the premise seems logical. Several years from now, I think we'll come up with a pretty reliable forecasting chart. It should be a great help to the tuna boat skipper, but it won't be a substitute for experience, know-how, and fishing sense."

Good California Albacore Fishing

An unusually early run of albacore from Davidson seamount almost to Monterey drew boats of every type and size during the first two weeks in August. From Morro Bay to Moss Landing every small port was full as the trollers came in for fuel and supplies. Nearly all skippers reported good catches. Some of the fish were unloaded in Moss Landing where $375 a ton was being paid.

Pacific Oyster Growers Elect Seattle Man

Edward J. Gruble of Seattle Washington has been elected president of the Pacific Oyster Growers Association. J. J. Brenner of Olympia has been elected vice president and Charles R. Pollock has been reappointed to his 21st year as secretary-treasurer. Board members are Gruble, Brenner, Bob O. Bower, Olympia, George M. Yanagimachi, South Bend, Wash., and William G. Gardiner, Crescent Beach, B. C.

Members of the industry attending the 12 annual convention held in the Olympian Hotel at Olympia, Washington August 21 through 23, heard talks on oyster preservation, pollution, predators, marketing, research and, followed by a panel discussion on the papers given.

Speakers contributing to the meeting were Cedric Lindsay, supervisor, Shellfish Laboratory, Quilcene, Wash. who spoke of the Progress on Oyster Rehabilitation Research; Dr. Harvey McMillin discussing the Washington State Oyster Reserve Program; and Harold E. Miller, director Washington State Pollution Control Commission, who gave an account of Pollution Control—Accomplishments, Problems, and Plans. Others following later in the program were Fred W. Hipkins, chief Branch of Market Development, Bureau Commercial Fisheries, Seattle, Wash., with comments on Marketing Development—How We Can Help The Oyster Industry; Kenneth K. Chew, College of Fisheries, University of Washington, Seattle, who told of the Studies of Feeding Habits of Oyster Drills; and Richard W. Nelson, chief-engineer, Seattle Technological Laboratory and Bureau Commercial Fisheries with a Progress Report on Studies of Freezing and Storage of Pacific Oysters.

The discussion panel concerning the presented papers included Dr. R. E. Dimick, chief, Dept. of Fish and Game Management, Oregon State College, Corvallis, Ore., Dr. H. C. Orcutt, Marine research Operations, Stanford University, Palo Alto, Cal.; R. E. Westley, biologist, Shellfish Laboratory, Washington Dept. of Fisheries; and Dr. Richard Van Cleve, acting dean, College of Fisheries, University of Washington.

The convention was concluded by the annual banquet and dance.

New University of Washington Director

Dr. William F. Royce was recently appointed as the new director of the University of Washington's Fisheries Research Institute.

He had been serving as assistant regional director in charge of research for the Federal Bureau of Commercial Fisheries in Juneau, Alaska. In his new post, he succeeds Dr. William F. Thompson, founder of the Institute, who is retiring but will remain on the staff as a consultant and professor emeritus of fisheries.

The institute is largely supported by research contracts from the federal government and the fishing industry, and this year's contracts total approximately $600,000.

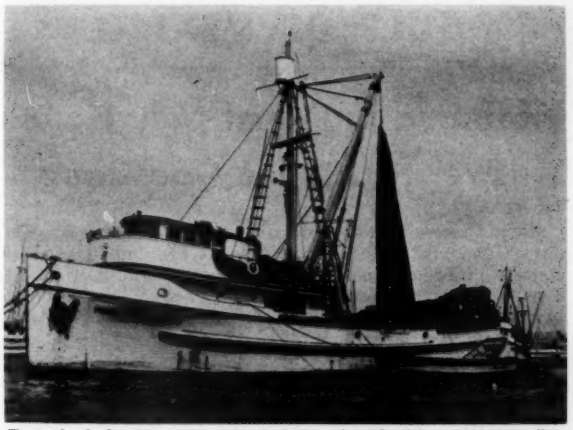
Washington Takes Steps to Preserve Fraser Salmon

Emergency restrictions to preserve early runs of the Fraser River sockeye salmon were announced last month by the International Pacific Salmon Fisheries Commission and the British Columbia Government.

A week's delay on the start of sockeye fishing in the Strait of Juan de Fuca was extended for three additional days and sockeye fishing was closed in the Fraser River and North Puget Sound between Whidbey Island and the International Border.

The closings were ordered to permit an estimated 200,000 salmon to escape up the Fraser River and provide adequate spawning stock.

Freakish high temperatures of North Pacific waters are blamed for baffling reversals in the patterns of salmon migration this year and for the critical problem of escapement.



Typical of the Monterey purse seiners, the 82' "New Marettimo" is one of the most modern in the fleet. Built in 1944 by Martinolich in San Francisco, she has a hold capacity of 145 tons and 250 hp. Enterprise engine.

Early runs of sockeye this year have been coming in from 10 days to two weeks late, thereby disrupting previously established fishing seasons.

Also, the early Fraser River sockeye have deserted their normal homing route down the West Coast of Vancouver Island and in to the Fraser through the Strait of Juan de Fuca and North Puget Sound. Instead, 60 per cent of them are coursing south through chillier waters off the east coast of Vancouver Island which is in Dominion waters rather than international waters.

Oregon Boats Making Good Tuna Catches

Tuna fishermen in the Astoria area have landed good catches for several weeks, and during one week-end last month delivered nearly 100,000 pounds.

The 50-ft. troller *Garda Marie* docked on August 13 at Astoria with 18 tons of albacore, the biggest cargo of any single boat. Other good catches were an 11-ton load brought in by the Seattle fishing vessel *Chelan;* 11 tons landed by the Seattle boat *Radar;* and 11¼ ton load brought in by the *Myrna,* and a 13 ton load landed by the Seattle boat *Ardie.*

The run is considered the biggest in ten years and the fishing fleet was most heavily concentrated off Newport.

New Processing System Started in Oregon

A new process for emulsifying fish to be used as a protein factor in chicken and cattle feed went into operation in Astoria recently when Oregon Fish Processing Co., Inc. opened their plant.

Present plans call for operation of the plant, capable of handling 36 tons of fish per hour, for a six-hour period each day, according to corporation president Richard DePolo.

The plant takes solid scrap fish and reduces it to a semi-liquid state which can be shipped through brokers to feed manufacturers throughout the nation.

Fish are carried on conveyor belts from the dock through the completely automatic emulsifying plant and into tank cars for transportation.

Operators of the plant plan to use scrap fish, mostly hake, which will be hoisted on conveyor belts at the dock, taken into the plant and placed in three large steel tanks containing baffles and chemicals. Fish will remain in these tanks about six hours during the conversion process and then pumped through a series of pipe lines into a 12,000 gallon storage tank for later shipment.

The new process provides the first market for hake and possibly other scrap fish, previously thrown overboard by fishing boat operators.

GULF OF MEXICO

Alabama Biologist May Have Answer to Jubilee Question

Harold Loesch of the Alabama State Conservation Department may have the answer to Mobile Bay's most closely guarded secret—the cause of the Jubilee. Mobile Bay is the only place in the world where jubilees have been verified. During a jubilee fish move dazedly toward shore and can be picked up by hand in shallow water. Loesch says he believes that the phenomenon is caused by a wedge of salt water under a layer of fresh water. The rim of the wedge has a low oxygen and high carbon dioxide content which knocks fish senseless.

There must be certain prerequisites according to Loesch. There has to be mild weather for at least a week previous; a mild easterly, southeasterly, or northeasterly wind; a rising tide; and a nearby source of fresh water. When all those things are perfect, salt water which is heavier than fresh forms a wedge underneath the fresh water.

There are two reasons why the jubilees occur on the eastern shore of the bay. One is that the high bluffs keep the water from being mixed and the wedge destroyed. Another is that there is fairly deep water close to the shore.

Loesch has made several tests to determine just what happens in the wedge. On the spot laboratory tests for oxygen content show that at three feet there were 6 parts of oxygen to 1,090 parts water. At 5 feet the ratio was nearly the same. But, at 9 feet the oxygen content dropped sharply to .46 parts to 1,000 and at 12 feet to .41 to 1,000. The carbon dioxide content increases in the salt water portion of the wedge to roughly twice that in the fresh water.

"Jerry Joe", shrimp boat owned by Joseph F. Guidry, of Lafitte, La., was judged the best decorated craft in the large boat class at the recent shrimp fleet blessing held on Bayou Barataria.

Loesch theorizes that jubilees occur most often at night because decomposing leaves deposited by fresh water consume a large amount of oxygen. During the day there probably are enough plants in the water to produce sufficient oxygen. At night the plants do not produce that oxygen.

The reason fish are found in shallow water he says is because the wedge has moved that far shoreward with the tide. A similar amount of bottom fish could be found stunned in deep water when the wedge passes through that section. Bottom life is generally affected because that is where the oxygen content is lowest and carbon dioxide highest. However, Loesch points out, it is still only theory and needs further study.

Fleet Blessings Held at Alabama Ports

The annual blessing of the fishing fleet of Bayou la Batre was carried out on August 3 despite drenching rains.

The blessing rites were administered to the entire fishing fleet of 88 vessels. Following the rites, prizes were presented to boats competing in a decoration contest. Top trophy for decorations went to Capt. August Hill, skipper of the *Ling*. The *Starlight* won second prize and the *Belle of Portugal* was third.

At Dauphin Island the first annual blessing of the fishing fleet was held last month and 12 commercial fishing craft and 10 pleasure boats turned out for the event.

The fishing vessels were all entered in a decoration contest and the *Capt. Frank*, Capt. Jimmy Collier took top place. Other winners in the commercial division were the *Ave Maria* and *Emma Harvey*.

Texas Shrimp Production Reaches Highest Point of Year

Favorable weather helped boost shrimp production in Texas to reach its highest point of the year when 6.6 million pounds heads-off shrimp were landed at principal Texas ports in the 30-day period ending August 15. This was 50 per cent above the 4.3 million pounds recorded for the previous period and 20 per cent above the 5.5 million pounds landed during the corresponding period in 1957.

Texas landings of heads-off shrimp for the first seven months of 1958 were 16.5 million pounds, as compared with 18.6 million pounds in 1957 and 10.7 million pounds in 1956.

Shrimp landings at principal ports in the Gulf states of Louisiana, Alabama, Mississippi and Florida West Coast for the first seven months of 1958 totaled 41.9 million pounds.

Edible fresh and salt water finfish production for the first seven months totaled 4.9 million pounds.

Oyster production continued to slump last month. Landings to August 1 totaled 312,750 barrels. A part of the loss in 1957 and 1958 can be attributed to the barring of dredging on some of the most productive reefs in the Galveston Bay and Sabine area by the Texas Game and Fish Commission as a conservation measure to prevent complete destruction of live reefs.

Production of blue crabs seems most promising, with an average annual increase of approximately one million pounds. From January 1 to August 1, a total of 6.1 million pounds has been landed in Gulf states' ports. The corresponding period in 1957 registered 5.1 million pounds and the first seven months of 1956 recorded 4.4 million pounds.

Aransas Pass Program Completed

The expansion program at Conn Brown Harbor in Aransas Pass, Tex. has been completed and more than 2,000 feet of additional dock space has been made available to shrimping interests.

The Aransas Pass Shrimp Association recently petitioned the City Council to make the newly-created dock space available to the industry free of charge. However, the request was denied and a lease rate of $2 per foot per year was set on the new section.

Shrimp-O-Ree Held at Aransas Pass

The annual Aransas Pass, Tex. Shrimp-O-Ree was held over the Labor Day weekend, with the festivities beginning with the crowning of the king at a spectacular ceremony on the evening of August 29. Six Aransas Pass men were candidates for the position, having been nominated by a committee appointed by the Aransas Pass Jaycees and the Aransas Pass Shrimp Assoc. They were: Eugene Webster, owner of Webster Seafoods Co.; Tommy Summerlin, owner of Gulf Shore Processors; Charles W. Marshall, co-owner of Cage-Marshall Funeral Home; John Smith, owner of Pick & Pay Grocery; Frank Galbraith, superintendent of United Carbon Co.; and Bell Mobley, co-owner of Casey's Seafood Co.

Following the blessing, decorated boats were judged and awarded prizes of more than $2,000 in merchandise. The *Hilda G.*, with Oscar Galjour as captain, won first prize in boats of more than 55-ft. length. Second place went to the *Southern Breeze*, Capt. Manuel Gates, and third to the *Captain Charles*, Capt. Oliver.

Louisiana May Have New Industry in Scallops

Louisiana Wild Life and Fisheries Commission biologists, under the direction of Percy Viosca, have found what they consider may be a rich new seafood industry off the Louisiana coast—scallops.

The beds had remained almost unknown since 1906 when they were reported by M. H. Spaulding in a bulletin of the Gulf Biological station.

Skin divers searched the underwater area, using aqualungs, and brought up quantities of the clam-like bivalve mollusks. They measured about two inches across.

The scallops were immediately tested for edibility and found to be of excellent quality and taste.

James N. McConnell, chief of the Oysters and Water Bottoms and seafood division, said he would ask the commission to close the area to commercial exploitation until further surveys can be made.

Big Run of Louisiana Brown Shrimp

Within a 10 day period last month approximately 294,500 pounds of brown shrimp were unloaded at Morgan City, Berwick and Patterson. This was more than the total catch of July, when production of both brown and white shrimp amounted to 231,490 pounds.

It is estimated that production of shrimp by the fleet fishing out of Morgan City should go well over one-half million pounds in August.

The three Cameron shrimp plants were busy last month with the opening of the inland waters to shrimping and a run of large brown shrimp between Cameron and Morgan City.

Large catches of shrimp in Calcasieu Lake were reported during the first few days after the season opened. One plant owner, Roland J. Trosclair, said he was taking in an average of 100 barrels of lake shrimp a day.

Steed's Fish Co. and the Cameron Seafood Co. also reported large catches of large brown shrimp coming in each day.

Largest Fleet for Louisiana Co-op

The largest fleet in its history is now producing the Louisiana and Texas brand of fresh frozen shrimp sold by Twin City Fishermen's Cooperative Assoc., Inc.

Total production for the Association last year was 2,218,600 pounds of shrimp.

Heading the cooperative as president and general manager is John W. Lewis who holds the important position of member on the American Fisheries Committee.

Other officers of the cooperative are Ernest Webster, vice-president; Ashley Galloway, second vice-president and A. T. Galloway, secretary-treasurer. Norman Gaudet is chairman of the board directors.

Morgan City Annual Shrimp Festival

The 21st annual Louisiana Shrimp Festival and the Blessing of the Fleet was held in Morgan City during the Labor Day weekend. Following the blessing on the 31st of August, one of the most spectacular water parades ever presented was enjoyed. Other events held during the Festival were speed boat races and the annual Shrimp Festival Golf Tournament.

F. C. Felterman, Jr. of Patterson, owner and skipper of the trawler *Courageous* was crowned King of the 1958 Festival. Capt. Felterman brought in during 1958 a total of 59,540 pounds of shrimp, the greatest amount brought in by 100 or more deep sea trawlers fishing out of this port, to earn him the title of champion shrimper and the right to the festival crown.

On August 14 the eight annual shrimp festival at Delcambre was held, beginning with the crowning of a new shrimp queen.

Senator Allen J. Ellender was invited to be the principal speaker, but his acceptance depended upon the adjournment of Congress.

"BETTY & JOHN O", 53' shrimp trawler built for Manuel A. Sanchez, Jr., Brownsville, Tex. by Morehead City (N.C.) Shipbuilding Corp. Powered by a Caterpillar D-88 Diesel rated 88 hp. at 1,000 rpm., her equipment includes Stroudsburg 515½T hoist, 750-watt Onan auxiliary generator, Jabsco bilge pump, Raytheon 701 depth recorder, Metal Marine automatic pilot, One-Mile-Ray searchlight and Wall rope.

Blessing at Lafitte, Louisiana

The annual blessing of the shrimp fleet in Lafitte, La. was held August 10. A total of 146 boats were blessed by Rev. John L. Newfield, pastor of Saint Anthony church in Barataria. This was the largest number of boats ever blessed at the Lafitte festival.

The boats were blessed as they filed past the *Gulfresh*, which was docked at Kerner's bridge on Bayou Barataria. The procession was led by the flagship, *Serigny Bros.*, owned by Kenneth Pizani, captain of the fleet. Aboard were Louis Touchard as King Jean Lafitte VI, his queen Mrs. Edna Matherne, and their court.

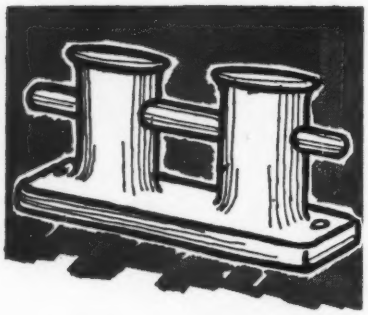
Prizes were awarded for the best decorated boat in each of three classes. Winner in the large boat class was the *Jerry Joe* owned by Joseph F. Guidry; in the medium class, the *Mr. Russ* owned by Eugene Agoff; and in the skiff class, the *Eddie Boy* owned by Eddie Sapia, Jr. Activities were concluded by a ball and presentation of the court.

Mississippi Seed Oysters Plentiful on State Reefs

According to Chester Delacruz, president of the Mississippi Seafood Commission, Pass Christian oystermen should have a better season than last year. Inspection of the tonging grounds and the dredging area recently revealed plently of seed oysters. It is believed that the good supply of oysters is due largely to much fresh water during the summer.

The abundance of seed oysters this year can mean a great deal to the industry in the future if taken advantage of fully. The seed oysters should be left on the reefs this year, although some of them will be large enough to market by December.

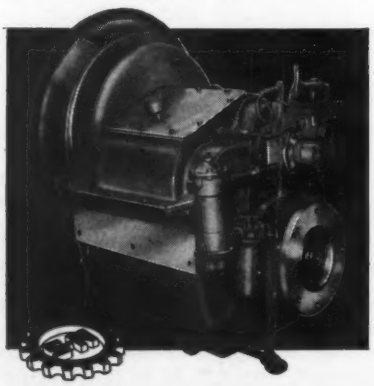
Bruce Strawbridge, the commission's marine biologist said that he is against any dredging this year because it could deplete the area. He stressed conservation and said that if these seed oysters are handled right, it will be a step toward bettering the state's oystering industry.



SIMPLICITY
is
Perfection

The towing bit is an excellent example . . . simple . . . rugged . . . completely dependable. You will find these same features of perfection in the S-N 3900 Series Hydraulic Reverse-Reduction Gears. Engineered for high speed, heavy duty diesel engines, the 3900 Series offer you every desirable feature for smooth performance and utmost dependability. They deliver full power and speed . . . ahead or astern. Compact design . . . rugged construction . . . ease of servicing . . . low price per horsepower . . . wide choice of reduction gear ratios . . . are but a few of the reasons why your best investment is S-N. See your S-N distributor or write direct for literature.
Snow-Nabstedt Gear Corporation
Hamden, Connecticut.

S-N *3900 Series*
REVERSE-REDUCTION GEARS



SNOW-NABSTEDT
Transmission Engineers
FOR OVER HALF A CENTURY

Great Lakes Fishermen See Better Trout Catch

Although gill netters operating in Lake Superior waters were not getting the best catches of lake trout during the warm weather, indications are that the fall run of lake trout prior to spawning function will show improvement. Fewer lamprey scars have been noted on larger fish, while two-year-olds are virtually without marks of lamprey attacks. It is hoped that within a few years Fish & Wildlife Service's all-out attack on sea lamprey will bring the results anticipated. Already some fishermen have observed improved conditions against the parasitic eel.

During August on the western end of the big lake, commercial netters were getting somewhat better whitefish catches than last year during the same period.

Herring were taken in good commercial quantity in the mid-lake bay areas during the late summer, and yields of other fish were generally fair.

In the Green Bay area fishermen were getting fair catches of yellow pike, fairly good yields of yellow perch and good catches of small chubs which seem to be plentiful.

On Lake Michigan, commercial fishing has been generally fair, although commercial chub fishermen were getting good quantities of chubs in small sizes. Yields of herring were fair, with improvement indicated during the last week of August.

From Lake Huron chubs and herring have been landed in good commercial quantity. Perch yields were beginning to increase from Saginaw Bay.

On Lake Erie, where fish production has been somewhat down over the spring abundance, fair catches of yellow perch and yellow pike were made in western waters. Bullheads, sheepshead etc. were in fair production and in the eastern waters of Lake Erie, some whitefish were taken by gill netters.

From fishermen plying waters of Lake Ontario comes the report that fishing generally has been slow but is picking up and is expected to increase sharply in September. Production of ciscoes have been only fair and some whitefish are being taken in fair commercial quantity. Perch have been generally in good commercial abundance.

Dredging to Aid Lake Erie Fishing

A rebirth of the $1-million-a-year fishing industry is envisioned when reconstruction of Barcelona Harbor on Lake Erie is completed during the next two years.

Informed persons at Westfield, N. Y. anticipate that the commercial fishing fleet, now reduced to a half-dozen boats, will number upwards of 30 with the completion of dredging operations and the construction of two breakwalls at this gateway to the Chautauqua region. Congress has appropriated $1,115,000 for the project.

THE 42' STEEL FISH TUG "MERCURY", owned by Le Clair Brothers, Jacksonport, Wisc. fishes for white fish and chubs. She is powered with a 165 hp. Cummins Diesel, has Linen Thread nets and uses Shell fuel and lubricating oils.

Seek to Improve Great Lakes Carp Flavor

Food researchers at the University of Wisconsin are conducting experiments to determine the exact requirements for delectable smoked carp.

The researchers hope that results of the tests will make possible scientific, commercial large-scale smoking of carp, and that some day carp will join other fish in supermarket displays. At present, carp are not highly favored as a food in the midwest, most of those taken by state and commercial fishermen going to eastern markets.

Another university project involves taste tests on different fish from various sources. It is hoped to isolate the causes and locations in the flesh of "off" flavored fish.

Erie Cruise Report Given

During Cruise 7 by the motor vessel *Cisco* which ended August 11 trawling was conducted at 13 stations in western Lake Erie. Adult yellow perch and sheepshead were common in nearly every drag, as were fry of several species. The most abundant fry were yellow perch, white bass and smelt, but occasionally sheepshead, alewives and gizzard shad were also numerous. Very large catches of smelt were made at the easternmost and deepest station.

A limited amount of night time midwater trawling was done southeast of Kelly's Island. Smelt fry and emerald shiners were fairly numerous at mid-levels, with white bass fry, gizzard shad, spottail shiners and yellow perch also present.

Tempaloy Shafting cuts costs for Northwest boatbuilder

The Harold Hansen Boat Company, Seattle, Washington, selected a 3½" by 12-ft. Tempaloy shaft for the recently completed commercial fishing boat, *Pacific Maid*, because its extra-high strength made it possible to use higher power with relatively small diameter. At the same time a new sister ship, *Olympic Maid*, is having power installed. A 3½" Tempaloy Shaft provided the extra strength needed in both installations.

TEMPALOY® -917, nickel-aluminum bronze shafting, was developed by The American Brass Company for use requiring extra-high strength and lighter weight. Repowering with higher horsepower engines often means replacing original shafting, too. Tempaloy provides the needed extra strength with no increase in shaft diameter—saving costly alteration of bearing, stuffing box and housing assemblies. Features: toughness and high yield strength—high resistance to shock—excellent corrosion resistance—lighter weight—special straightening—individually wrapped and trade-marked—reasonably priced.

TOBIN BRONZE® Shafting has proved itself through its dependable performance on thousands of pleasure boats, fishing and other commercial craft. It is this record of dependability that has made it first choice of boatbuilders and boatowners.

Pacific Maid and **Olympic Maid** are suitable for halibut, tuna, and salmon in Northwest waters. They are both approximately 57 feet over-all, with a 17-foot beam.

Both Anaconda propeller shafts are available through leading marine supply distributors. For detailed information, see your distributor or write: The American Brass Company, Ansonia Division, Ansonia, Conn. 58118

ANACONDA®

PROPELLER SHAFTING
MARINE BRASS AND BRONZE
EVERDUR® FOR FASTENINGS AND FITTINGS

Save Money - Make Money
With A Hatteras Trawler

You get sea-tested design, sea-proved performance with rugged Hatteras Trawlers. They have proved their ability to make profits in years of fishing the North Atlantic.

It's easy to own a Hatteras Trawler. Low initial cost makes one of these vessels an economical replacement for your present dragger—or enables you for the first time to buy and fish a boat of your own.

The combination of select materials, and careful workmanship by experienced builders, assures you of long vessel life, low maintenance cost, and steady, profitable fishing.

Write or call today to learn how you can buy an economical, money-making Hatteras Trawler.

- **Foreign inquiries welcomed**
- **We invite inquiries from representatives of engine manufacturers and dealers**

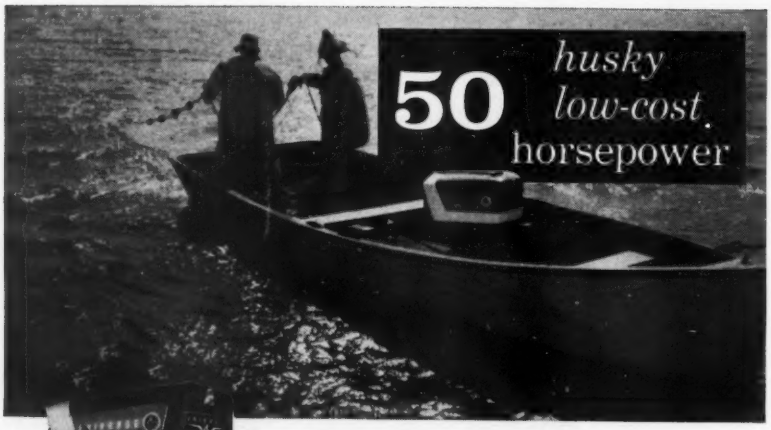
MOREHEAD CITY SHIPBUILDING CORP.
Telephone 6-4146 Morehead City, N. C.

Please send me free pictures and information about Hatteras Trawlers (N)

NAME _____

ADDRESS _____

CITY _____ STATE _____

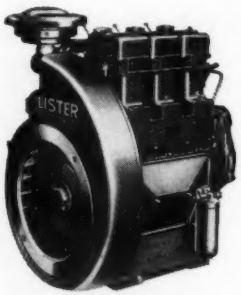


Here's the one for rigs that need *real* power . . . Evinrude's great "Four-Fifty." New, compact V-4 design. 70.7 cu. in. displacement. Delivers 50 solid b.h.p. at 4000 revolutions—easily, smoothly, quietly—in toughest day-in, day-out service. See your Evinrude dealer—he's listed in the yellow pages under "Outboard Motors." Complete range of models to choose from. Evinrude Motors, 4320 N. 27th Street, Milwaukee 16, Wis. *A Division of Outboard Marine Corporation. In Canada: Mfd. by Evinrude Motors, Peterborough.*

EVINRUDE

quiet outboard motors

Highest Performance
from
Lowest Horsepower!
AIR-COOLED DIESELS
— by Lister



Model HA3
30 BHP @ 1800 rpm
For Auxiliary

EXCEPTIONAL ECONOMY . . . OUTSTANDING SAFETY . . . INSTANT STARTING in temperatures from sub-zero to 130°. All yours when you install a LISTER!
Convincingly service-proved, LISTER Diesels (3½ to 600 HP) provide auxiliary power for over ¾ of New England's fishing fleet; propulsion and auxiliary power for fishing boats, work boats and other commercial craft coast-to-coast and the world-over. Parts and service in principal coastal and river ports.

1 to 3 cylinders
3½ to 30 BHP @ 1800 r.p.m.
(Gross Rating 5 to 44 HP)

AUXILIARY POWER for:
Pumping, electric power generation and other auxiliary uses at gratifying low cost. Outstanding "reserve" in the event of unanticipated heavy power loads.

WRITE FOR LITERATURE
Distributorships available in some areas

LISTER-BLACKSTONE, Inc.
42-32 21st Street, Long Island City 1, N. Y. Tel.: STillwell 6-8202
In Canada: Canadian Lister-Blackstone, Ltd., 1921 Eglinton Av. E., Toronto 13, Ont.

Iceland's Fishing Limit Tested By British Trawlers

Iceland re-announced, August 29, its decision to extend its offshore limits from 4 to 12 miles. The action forbids all foreign boats from casting nets inside the continental shelf extending 12 miles off Iceland's shore. Icelandic trawlers and seiners are allowed to fish inside the new 12-mile limit, but they are subject to special licensing rules published shortly before September 1, when the regulation took effect.

The British Foreign Secretary said that the Government has made it very clear that it would not accept unilateral declarations of this character and that any changes must be made by negotiation.

The British Government has shown itself determined to give her fishing trawlers every possible protection while they continue to fish in waters off the coast of Iceland. The admiralty has Royal Navy vessels patrolling those waters.

The recent Icelandic decree on the fixing of Iceland's fishing waters at 12 nautical miles caused the Swedish Government to submit a note to the Icelandic Government. It draws attention to its consistently upheld view that no state has the right to take unilateral action to extend its territorial waters beyond their present limit, said limit having been recognized by international law and that it may not establish zones in which it reserves special rights.

In the view of the Swedish Government, measures taken in violation of these regulations constitute an infringement on the open seas, and the Swedish Government has continually felt obliged to lodge its protest and to reserve to itself its rights as soon as it learns of decrees or proclamations to this effect.

The Government recognizes that the measures which may be found desirable for the control of fishing in areas under question should be principally achieved by cooperation between the states which conduct fishing in those waters and have therefore, a common interest in the matter.

At the meeting of a three-day Scandinavian Fishery Congress, which was held last month, Iceland's representative affirmed his government's decision to extend the fishing limits despite pleas from other Scandinavian countries for negotiation. The Icelandic representative stated that his country took the initiative for international negotiations ten years ago. He further stated that Iceland had waited long enough and that it must now protect its own vital interests.

A resolution, submitted by a West

German delegation has been unanimously adopted by representatives of the fishing associations from the seven European nations that met to discuss the issue at The Hague a short while ago. The resolution was handed to the governments represented, and to those of Norway and Sweden who were not in attendance. The resolution reads:

"The Western European Fishery Conference, assembled at the Hague . . . at which there were present representatives of Belgium, Denmark, France, West Germany, The Netherlands, Spain, and the United Kingdom, noted . . . that the Icelandic Government extended its fishing limit unlaterally to 12 nautical miles by decree on June 30, 1958.

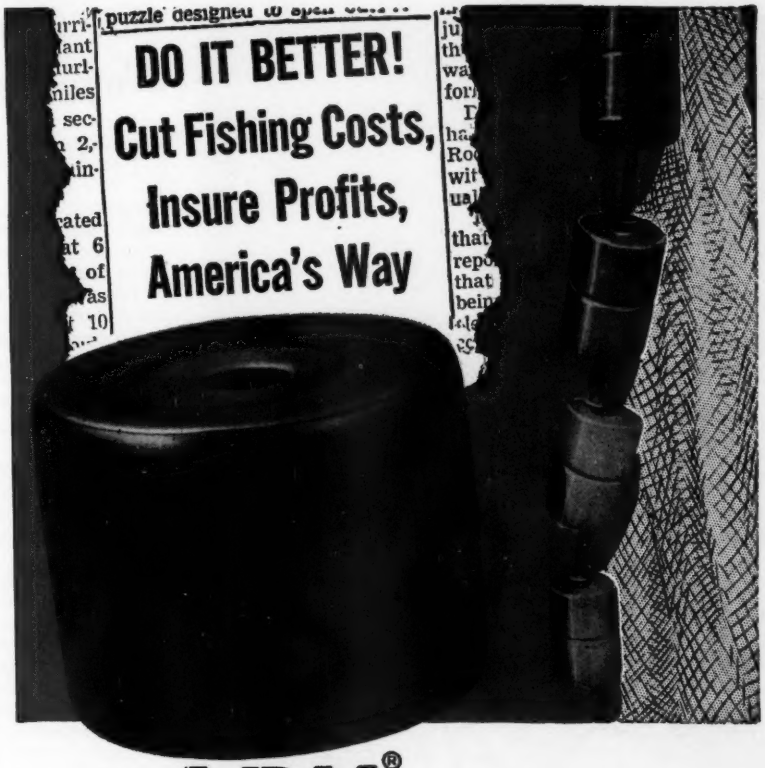
"The Icelandic Government decree is a clear offence against International Law. The West European Fishery Associations concerned therefore protest strongly against this unilateral action by Iceland and request their Governments to take the necessary measures to ensure that fishing vessels may, as hitherto, fish up to the limits previously agreed off the Icelandic coast. The representatives of the West European Fishery Associations resolved that:

"Because several other countries have much older historic rights in these waters than the Icelanders, Iceland's claim to a 12 nautical miles fishing limit is without foundation. These other countries have fished there since the 15th century. Modern trawler fishing in the waters concerned was founded not by Iceland, but by other countries, at the end of the last century.

"It was only just before the First World War that Iceland began fishing with steam trawlers in the waters now claimed by her. Before the turn of the century only coastal fishing, near the coast, was carried on by Iceland, and that with small vessels. Therefore, the countries who have fished off Iceland cannot give up their legal rights to fish these grounds.

"There can be no question of overfishing the waters outside the recognized limits. If there were, Iceland would have to forbid trawler fishing to its own vessels as completely as it is forbidden at the moment with in the four nautical miles limit to all nations, including Iceland. Nevertheless, the West European Fishery Associations are ready to accept amicable agreements with Iceland on conservation measures in the waters off the Icelandic coast.

"In conclusion the representatives of the fish associations of the nations here assembled, declare that they will continue to fish as before and agree to urge their Governments to protect their fishing activities off the coast of Iceland. In connection with this they suggest that such efforts of the Governments concerned might be co-ordinated."



USE ARK® PLASTIC FLOATS

Ark floats represent the type of development that has kept America the world's most productive nation. They provide *the better way* of rigging your nets for greater fishing efficiency and increased profits. Here's why...

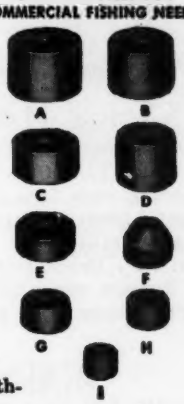
More Fish Caught More Easily—Ark floats never soak up water, are 50% lighter than cork, give a big reduction in the deadweight of nets. Heavy catches are easier to handle, and there's less chance of the net being dragged under and fish escaping.

Fewer Floats Needed—They're more buoyant and retain their original buoyancy through season after season.

Last Far Longer—They can't rot—are unaffected by harsh cleaning agents, oil, gasoline—resist abrasion, splitting, crushing.

Money Saver — Light-weight, buoyancy and durability combine in making Ark Floats your most economical buy...a real money saver.

TYPES AND SIZES FOR COMMERCIAL FISHING NEEDS



Manufactured By America's First Authority on Commercial Fishing Nets.

Free Ark Float will be gladly furnished. State the style you want (use identifying letter given above), and send with name and address to Ark Float Dept.

THE LINEN THREAD CO., INC.

418 GRAND STREET • PATERSON 12, N.J.

STARR
NYLON NETTING

BEST for QUALITY
BEST for SERVICE
BEST for HANDLING EASE

No getting away from it — STARR Nylon Netting is best! Lighter, stronger, resistant to rot, mildew and abrasion — all the benefits of 100% DuPont Nylon . . . Dependable, longer lasting, free from knot slippage, easier handling — all the benefits of Starr experience in the production of quality netting.

To fish first class
use the first class netting —
Starr Nylon, of course!

STARR NETS

STARR NETTING — STAR PERFORMANCE

A. M. STARR NET CO.
EAST HAMPTON, CONNECTICUT

How Coast Guard Rescues Dragger in Zero Fog *

HOW to distinguish the right target from many others on a radar scope during zero visibility weather was recently demonstrated by a Coast Guard cutter attempting to identify, from among nineteen different radar pips, a disabled fishing vessel that was calling for help.

The problem was to find the *Julia da Cruz*, a 72 foot dragger out of Gloucester, disabled in a heavy concentration of fishing vessels in one wide area near No Man's Land in the Atlantic off New Bedford. The vessel had radioed for assistance after becoming helpless with a broken shaft enroute to New Bedford with a heavy cargo of fresh fish valued at $67,000.

Lieutenant Commander Oliver W. Harrison of the cutter *Frederick Lee* was ordered to the rescue. At that time Commander Harrison, of Bucksport, Maine, was returning to his official home port, New Bedford, after a routine tow operation.

His orders indicated that the *Julia da Cruz* lay disabled about thirty-five miles south east, one quarter south of No Man's Land. Checking his position, he determined that the distressed vessel was approximately sixty miles away. The ocean was calm, there was little wind, and heavy fog made visibility zero.

The cutter's radar soon picked up the spread-out fishing fleet showing a bewildering array of nineteen possible targets. When asked how he went about determining which of the ships was the correct one, Commander Harrison replied that he used the radiotelephone to call the *Julia da Cruz*.

"When I got her, I told the Captain to give us a long count. While he was counting, we turned in a maximum signal on our radio direction finder, flipped the finder over to automatic and obtained a bearing."

When the needle of the finder swung around and settled on a bearing, steady the Coast Guardsmen were able to steer dead ahead in the fog, knowing that they were proceeding directly toward the distressed vessel.

Questioned as to what he would do if some other fishing vessels had been transmitting on the same frequency he replied, "In that case it would be pretty difficult to pick up the right signal. Normally, however, we call stricken vessels on a frequency that others are not using. The regular Coast Guard frequency is 2670 and nobody uses it as a rule unless they want to talk to us."

The *Frederick Lee* ploughed through the calm seas in the thick fog until she was within a half mile of the *Julia da Cruz*. At this point both vessels began to use their whistles. Alternating the audible signals in this way, they were able, by sound, to close in. The rescue was affected soon after.

Suppose there hadn't been a Raytheon automatic radio direction finder aboard. With all those targets on your radarscope, what would you have done then, he was asked.

"We would have had to spend ten or twelve hours checking to learn which one was in distress." He added, "You have your approximate position to begin with, of course, and I don't mean to imply that we would have to check every one of those nineteen targets. The stricken vessel would give us a position by Loran and this in itself would reduce the search to probably seven or eight ships in the area. Then it would be a matter of proceeding cautiously, getting close enough to identify, either by whistle signals or by actual sight. Even so, in fog this is no fun."

Commander Harrison readily agreed that the radio direction finder is a very good piece of equipment to have aboard and stated that with the average rescue at

* From material written by John F. True, Field Application engineer, Raytheon Manufacturing Company.

sea amounting to between 150 and 200 miles, it is now customary, when within twenty or thirty miles of the target to take bearings with the radio direction finder equipment as a matter of routine. It serves to provide a more positive directional check.

The crew of five fishermen waiting aboard the drifting *Julia da Cruz* in No Man's Land area was finally located by a tried and true navigational aid, the radio direction finder.

Just recently transitorized units became available. They are light, compact, and highly efficient. Since the transistor sets do not have batteries, which have to warm up the tubes before they become functional, they respond instantly to the touch of the switch, enabling the operator at once to home on radio beams. This may one day prove to be the means of saving lives in those desperate instances when a few seconds one way or another might spell the difference between life and death.

Routinely, the *Frederick Lee's* log records the culmination of the rescue: "0640Q. 17 October. Released tow of F/V *Julia da Cruz* to F/V *Annie M. Jackson,* vicinity Brooklyn Rock at entrance to New Bedford habor. 0720Q. Moored New Bedford, Mass. Case of F/V *Julia da Cruz* closed."

Stern Trawling Successful

(Continued from page 9)

respectively underneath the gallows, which are placed to both sides of the stern and inclined over the sides. An observation bridge for directing the fishing manoeuvres is arranged right over the ramp.

In order to reduce the friction of the net the top-end of the ramp is fitted with a long roller of big diameter. Vertical fairlead rollers are flanking the sides of the gap between the low end of the ramp and the observation bridge in order to guide the warps when fishing along "steep edges" and requiring much turning. These rollers, are useful also for leading the various wires between the gallows and the ramp.

"Fairtry" Prototype Factory Trawler

The experience gained from the practice of the "Fairfree" formed the basis for the design of the "Fairtry", which has since become the prototype of our present ideas about the requirements of a factory trawler. "Fairtry" was fitted with a shelterdeck, or more correctly with a "long forecastle" extending over most of her total length, ending, however, in a step down to the main deck shortly forward of the gallows. The gallows were arranged again at both sides and near the stern but somewhat further forward than on the "Fairfree". The fishing observation bridge was placed forward of the upper turn of the ramp. At the upper turn, of the ramp, the big diameter "first or top-roll" was applied again (as on the "Fairfree"), but the vertical fairlead rolls at the low end of the ramp were omitted.

In 1954/55 followed the 24 factory trawlers of the "Puschkin Class" built by the Kieler Howaldtswerke for the U.S.S.R. Here again we find the "long forecastle" ending shortly forward of the stern with a step down to the main deck. The ramp rises from the water surface to the height of the long forecastle. Gallows were omitted. Instead of leading the warps over gallows rollers they are supported by rollers fastened to trollies which run between horizontal rails fitted (at the height of the long forecastle) to both sides of the ramp and extending to the rear end of the vessel. This arrangement keeps the deck and the ramps clear of the warps, obviates the necessity of paying out much length of the warps when fastening or unshackling them from the boards and allows shooting of the trawl gear from the ultimate rear end of the vessel which is considered a much desirable convenience.

Be ready when fish are running

Don't be slowed down with a foul bottom or hauled out for repainting when the fish are there. That's the time for fishing. That's why so mdny smart fishermen everywhere are using "SUPER-TROP" Antifouling Bottom Paint, made by International Paint Company, Inc., specialists for over 70 years in the making of Marine Paints. It gives real protection against fouling of all kinds and retains its antifouling properties far longer than do ordinary bottom paints. Send for descriptive folder.

FOR METAL BOTTOMS

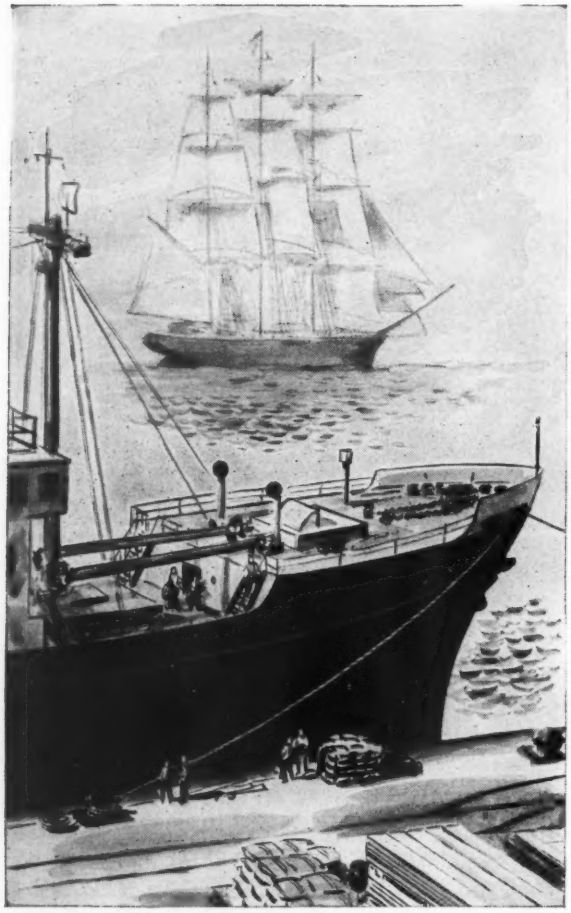
INTERNATIONAL has developed a combination of a primer and an antifouling paint that offers the maximum protection and preservation of metal bottoms. Send for the two circulars, "SILVER PRIMOCON" and "SUPER-TROP".

International
BOTTOM PAINTS

International Paint Company, Inc.

21 West Street, New York 6, N. Y. • S. Linden Ave., S. San Francisco, Cal.
628 Pleasant St., New Orleans 15, La.
1204 So. Ridgewood Ave., Daytona Beach, Fla.

WORLD'S LARGEST MARINE PAINT MAKERS



NEW BEDFORD ROPE

. . . first on the Clippers, first choice on modern vessels.

Fishermen and Fleet Owners know that New Bedford Rope is:

- **Tough and strong.**
- **Laid right for easy handling.**
- **Treated for protection against moisture and dry rot.**
- **Lubricated to reduce internal friction.**

New Bedford Rope is stocked in all major ports.

NEW BEDFORD CORDAGE COMPANY

NEW BEDFORD, MASSACHUSETTS

Serving the Maritime Industry Since 1842

After the net has dropped down the ramp by its own weight, it is drawn away from the ship by the wake of the vessel and pulls the said trollies, to which the danlenos are fastened by a chain and slip hook, backward to the rear end of the rails where they are blocked. Then the chain from the danlenos is released, the warps are run out until it is possible to fasten the cables and warps to the trawl boards. The warps are then connected to the boards which are then hung ready for fishing. By further running out of the warps, the boards will spread the net while sinking down to the bottom.

The tension on the warps, the downward and forward pressure by the latter on the rollers, and the push of the danlenos allows the trollies to move back automatically to their initial position as soon as they are unblocked from their rearward position. The whole manoeuvre of shooting takes place without the least deviation from the fishing direction and much time is saved for shooting and hauling the fishing gear.

The trawl observation bridge on the "Puschkin" trawlers was combined with the bridge deck forming its rear end. From here also manoeuvres of the net gear on the slip deck could be overlooked easily and the captain could get quickly from the navigating bridge to the trawl observation bridge.

Use on Small Trawlers

When reviewing the described arrangement with the stepped deck, the rail frames, the trollies and its structural features, the costs cannot be overlooked. For smaller trawlers with stern fishing gear therefore a more simple solution was desirable. On two such trawlers built by the Rickmerswerft in Bremerhaven, Germany, the shelter deck was carried without step to the vessel's stern. On both boats the well-tried portal-gallows rollers were applied again, the ramp is the same as on their bigger sisters, and the trawl boards are hung up to the sides of the ramp over the flat parts of the stern, the face of which is inclined forward from the water to the deck and fitted with guide bars for the boards.

The first of these two boats, the factory trawler "Heinrich Meins", built for the GHG in Bremerhaven, shows a gantry-shaped gallows extending from one side of the ship to the other. The gallows rollers are hung up on trollies movable transversely between two horizontal U-beams. The trollies can be blocked in side position when hanging up the trawl boards and also in a position near the center line of the ship. Between these two positions they are moved by a system of pulling chains and sheaves. When shooting the trawl gear and during the trawling operation the gallows sheaves are in their central position with the warps lifted up by them. This leaves the deck and the ramp free for the net. Before hauling the net, the cables can be thrown down from the open gallows blocks on to the ramp by means of an eccentric movement of the sheaves and conical slip iron. For lifting the warps into the gallows sheaves, towing-up-Gilsons are used. When lifting and hanging up the trawl boards after hauling, to fasten the warps and cables to the boards before shooting, the trollies for the gallows sheaves are moved into their position near the ship's side.

On the "Heinrich Meins" two Voith-Schneider propellers drive the vessel from underneath the fore-ship. This feature allowed the super-structure with the navigating bridge to be placed so far forward so that behind the super-structure a free upper deck of about 160' length became possible. On this deck the net can be hauled up with a single heave, thus saving the time for a second heave by means of a Gilson.

On the still smaller trawler "Carl Kampf" the transversely movable gallows rollers on the gantry-shaped gallows was considered too expensive still and too complicated for the rough trawler service. Though the overhead gantry is applied again the gallows sheaves have a fixed position over the places for the trawl doors. Nevertheless a relatively simple handling of the net could be realized, which is comparable to the handling on board of side-trawlers.

For pulling the Cable-Gilsons—just as on the "Fair-

"MIDWAY" out of New Bedford Powered by Cat* D397 Marine Engine

"Economical to own and operate with plenty of power," reports Ernest Clattenburg (right), owner-skipper.

"Easy upkeep . . . easy to maintain," adds Chester MacKay (left), engineer.

Owners have found that Caterpillar* means POWER—An engine with ample power to swing a big wheel—lasting, certified 4-cycle power that won't fade or foul. The power promised is the power delivered.

** Cat and Caterpillar are registered trademarks of Caterpillar Tractor Co.*

YOUR CATERPILLAR DEALER

PERKINS MACHINERY CO. INC.

Marine Division: 4 Water St., Fairhaven, Mass. *Phone:* New Bedford 6-0011

Main Office: Exit 53 Route 128, Needham Hts., Mass. Phone: HIllcrest 4-5800

free"—the barrels of the trawl-winch can be used. In order to reduce the time of work, special Cable-Gilson-drums, fitted to the inside of the net winch between the warping drums, can be utilized. With these drums the danlenos can be drawn on deck up to the trawl winch. Then it is possible to heave the rest of the net with Gilsons hauled on the winch heads or barrels on the ends of the winch.

On the rather small "Carl Kampf" the super-structure for the navigating bridge is so short that the trawl observation bridge could be arranged immediately behind the chart-room.

Stern Trawling At Present

At present the opinions about the various possibilities and methods of handling the net gear over the stern are still quite different. It must be left to the future and to practical experience to find a standard solution for this problem, a solution which is simple in construction, simple to handle and easily to be overlooked.

Generally speaking, the stern fishing method is not new. Small trawlers in the Mediterranean and more so on the American coast have been using this method for years. Good weather conditions there permitted the fishermen to open and empty the cod-end from the side before taking it on board, a method which is used today at other places with the so-called "swim-trawl".

For the bad weather conditions in north European waters and the much bigger trawlers the ramp at the stern as on the whaling factory ships became a necessity. The toilsome parting of the catch in the cod-end at the side of the trawler was avoided and in addition considerable time was saved by shorter interval between hauling and shooting.

For the problem of heaving the loaded cod-end up over the ramp without tearing the net, a good practical solution is expected to be found soon. Twin cod-ends, independent from each other or united by a longitudinal seam, have been tried already. Other proposals deal with transverse partitions of the cod-end, strong longitudinal ropes running along the cod-end or by using stronger twines. Not only the cod-end but more so the throat or lengthening place of the net is endangered when pulling up a big catch. With regard to the towing resistance of the net it is not advisable to use heavier twines. The best solution at present seems to be to use nets made of thin and very strong synthetic twines in combination with a sufficient number of longitudinal belly lines and with twin cod-ends.

The much simpler and quicker handling of the trawl gear over the stern ramp, a method originally developed as a necessity for factory trawlers, is now available for ordinary trawlers also. Saving of dead time between the hauls, i.e. more actual trawling time within a given fishing period, the possibility of going on with trawling during very bad weather, the handling of the catch under cover of the shelter deck and eventually saving of men—in other words more fish per voyage at equal or even reduced running expenses—are advantages of such economical importance that the application of the new fishing method should not be limited exclusively to factory trawlers.

The installation of processing machinery for a part of the catch or for the whole catch is no longer a problem. A continuous flow of production free from obstructions and in only one direction can be secured.

Further development of the well established method of "side-trawling" is hardly to be expected, while on the other hand the stern trawling method is still in a state of development, and is rich in prospects. The fact that more than half of the trawlers under construction in Western Germany at present will be "stern-trawlers" is proof of the wide-spread interest already taken in the new method.

EQUIPMENT and SUPPLY NEWS

Shrimp Trawler Handbook

Diesel Engine Sales, Inc., St. Augustine, Fla., has now made available, and includes as standard items with each boat sold, their new, illustrated Shrimp Trawler Handbook, including three types of inspection sheets.

The 44 page compilation of ideas and suggestions from owners and captains of shrimp trawlers, is one of the most complete and up to date guides to boat maintenance and safer boat operation ever printed. The book covers vessel description and machinery specifications; maintenance of main engine, propulsion machinery, deck equipment, auxiliary equipment and hull including a section on painting; fuel tank and fuel lines; safety precautions; Campeche procedure—emergency action on the Mexican coast; marine insurance; federal regulations and services with a section concerning the Federal Communications Commission; and preventive maintenance.

Illustrations include layout for typical pumping manifold, the use of collision mats, air-sea rescue signals, and storm warning signs.

Inspection sheets provide for a complete coverage of performance and vessel maintenance, and improved vessel service through the Captain's report, the Port Captain's report, and the underwater inspection record.

American Brass Has Metals Booklet

American Brass Co., Waterbury, Conn., has released a 20-page booklet, "Know the Metals in Your Boat." The booklet covers such subjects as the power plant, types of corrosion, proper fastening, and a thumbnail guide for repair. Written by an experienced boatman the booklet provides the boat owner with a guide to better understanding of boat metals for greater safey afloat.

King-Size Converters By Carter

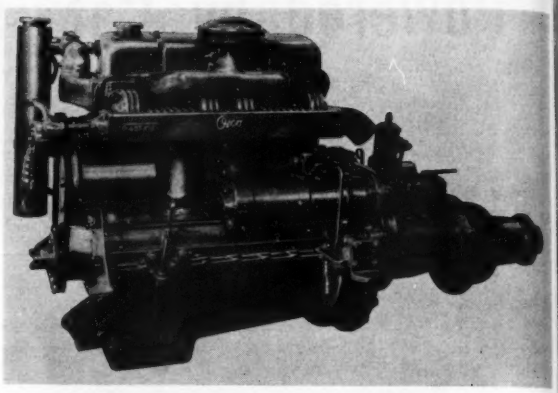
Carter Motor Company, 2711A W. George St., Chicago, Ill. anticipates a substantial market for its new giant converters, which are available for 1000, 1500 and 2000 watt AC output. They are designed for heavy duty performance in applications requiring a high capacity output of 115v or 230v AC, 50 to 60 cycle, single phase or 3 phase.

The converters operate from 32, 48, 64, 115, or 230 v DC. Four pole design permits an operating speed of the armature of 1800 rpm. Steel frame ring with aluminum castings give rigid, drip-proof, ventilated housing.

Rust-Oleum Coatings Manual Issued

A new 36 page protective coatings manual, Form 257, has been released by the Rust-Oleum Corporation, 2799 Oakton St., Evanston, Ill. The manual features color chips of 102 different coating items and has sections devoted to use of primers, finish coatings, and surface preparation.

The Apelco transistorized frequency monitor SM-4 has 5 crystal controlled channels within its 2000-5000 kc range. The unit weighs 8 lbs. and is treated against moisture, fungus, and corrosion.



Four-cycle, 68 hp. Ford Marine Diesel 4DF-T60PX has engine mounted fresh water heat exchanger and 2:1 reduction gear.

Ford Marine Diesel for New Tenders

The first of a number of 68-horsepower, 4-cycle engines, the model 4DF-T60PX Ford Marine Diesel, has been shipped by Osco Motors Corp., of Philadelphia, Pa., to the new Starkist Tuna/French Sardine combine fleet for a new class tender being built by C. H. Wallace Boatworks of Huntington Beach, Cal.

The 4DF Ford Marine Diesel features a compact, engine mounted, fresh-water, heat exchanger system of 8 psi. pressure type as well as hydraulic controlled reversing gear system with integral heavy duty 2:1 reduction gear train. The engine is designed to provide maximum ease of control and has a 12 volt electric starter and generator.

New Bludworth Facilities in Texas

Bludworth Marine, Clifton, N. J., has established new service facilities in Houston, Galveston, Beaumont, and Corpus Christi, Texas, through Gulf Radio Telephone Sales Inc., whose headquarters are 2424 Sutherland Ave., Houston. Bludworth Marine products include marine radar, depth sounders, radio direction finders, and radio telephones.

Exide Boston Branch Moves

The Boston branch of Exide Industrial Division, The Electric Storage Battery Company moved, August 25, into its new building at 315 Mystic Ave., in Medford, Mass.

The new location, just completed, is on Highway 38 north of Boston and is easily accessible from that city and other New England Points via Circumferential Highway 128. Ample parking is available.

The branch, with a staff of 16, is responsible for sales and service of Exide industrial batteries, Electric products chargers and related equipment plus battery and charger repair service and a stock of batteries and parts.

Apelco Transistorized Receiver

Applied Electronics Co., Inc., 213 East Grand Ave., South San Francisco, Cal., manufacturers of Apelco marine electronic equipment, has announced the new transistorized SM-4 Signal Monitor.

The SM-4 is designed to monitor ship-to-ship, ship-to-shore telephones and distress frequencies. It can be used in conjunction with an existing marine radiotelephone as an auxiliary receiver, or combined with a separate transmitter to form a complete communications package.

Five crystal-controlled channels can be preset within its 2000 to 5000 kc. frequency range. Crystal controlled channels are provided for stability, band switching flexibility and ease of operation. Apelco's exclusive positive-

action noise limiter is designed to suppress bothersome static and ignition noise.

SM-4 is transistorized for low current drain, conservation of space and reliability. Units are available for either 12 or 32 volts DC operation. The cabinet is compact for mounting purposes—5½" deep by 6⅛" high by 11¼" wide, weighs 8 pounds. The unit may be shelf or bulkhead mounted. Entire unit is treated against moisture, fungus, and corrosion.

Canor Plarex Polyvinyl Buoys

Plastic buoys, made in Norway for the crab and halibut fisheries, are being distributed in the United States by Canor Plarex, Inc., 2614 Western Ave., Seattle, Wash.; and New York City. The floats are made of tough polyvinyl plastic and are available in any color, although normally they are furnished in orange to give greater visibility at sea.

While they have specific applications of their own, Polyform buoys are intended to replace Scotch buoys with rubber markers. The buoys are spherical in shape with a specially molded conical projection section where the gear is attached and the float inflated. Sizes rated in inches of circumference, are 40, 50, 60, and 75 inches; but the buoys may be inflated to considerably larger sizes if desired.

Brush Aboe Inc., Name Changed

Orenda Engines Ltd. the leading manufacturers of jet engines in Canada, recently announced extensive plans for industrial expansion in the United States and Canada. To further these plans, they have formed a new company, Orenda Industrial Ltd., with head offices in Toronto, and a subsidiary company in New York, Orenda Industrial Inc. (formerly Brush Aboe, Inc.).

From their new and enlarged offices at 34-41 58th Street, Woodside, N. Y., Orenda Industrial Inc. will continue to market the products of the Brush Group of companies in England, which include the Diesel engine lines of Petter, McLaren, National, and Mirrlees, ranging in size from 1½ to 4000 hp. for industrial and marine application.

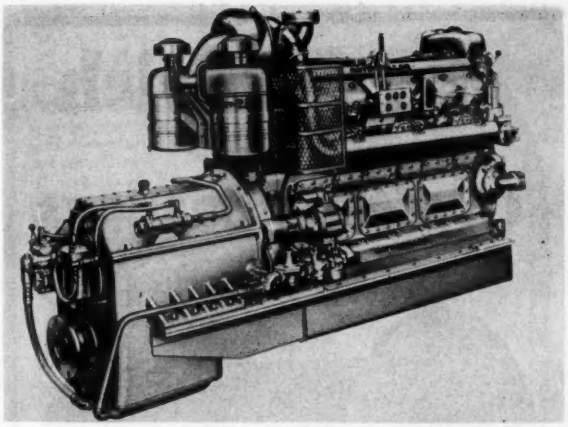
Fiberglass Fish Boat Equipment

Carolina Fiberglass Products Company, Wilson, North Carolina, is now manufacturing ventilators, fresh water tanks, and life and striker boats in fiberglass reinforced plastics for the fishing industry.

Specifications for the life and striker boats are identical. The all fiberglass boats were designed in incorporate ideas of many commercial fishermen resulting in boats that offer safety, seaworthiness and durability. Standard equipment includes 2 pairs 7′ oars, 2 sets oarlocks, lifting ring, towing ring, drain plug, annodized aluminum gunwale rail. Each seat is an airtight compartment filled with Styrofoam for added safety. A light weight of 260 pounds is to aid in launching and recovery. Overall length is 12′8".

The freshwater tanks are made in two sizes, 16" x 40" x 96" with a capacity of 250 gallons and 16" x 40" x 72" with a capacity of 180 gallons. The tanks have a flat surface with a 2" flange and can be mounted with lugs or bolts to any flat surface. The other side is corrugated for rigidity. The intake, outlet, and vent can be placed according to particular specifications. The ventilator dimensions measure 12" x 6" x 16" with the opening covered with #8 galvanized wire.

Fiberglass life boat manufactured by Carolina Fiberglass Products.



Caterpillar D397 Marine Engine rated 500 continuous hp. at 1125 rpm. shown with the new Caterpillar 3181 Marine Gear.

New Caterpillar 3181 Marine Gear

Caterpillar Tractor Co., Engine Div., Peoria, Ill., announced a marine engine and marine gear power package with the introduction of its new 3181 Marine Gear. The gear will be used with the D397 Marine Engine.

The 3181 Marine Gear has been designed with reserve capacity and will operate with either right or left hand propellers regardless of engine rotation. This permits full power for reversing over definite periods. In multiple screw installations, identical engines and gears can be used with counter rotating propellers for simplified maintenance and parts availability.

In addition to the standard 3.68:1 gear ratios, 2.40:1, 3.03:1, and 4.38:1 ratios are available as attachment gear units. The 3181 is equipped with hydraulically actuated and lubricated forward and reversing clutches for fingertip control. The entire transmission and clutches have oil cooling for use with a heat exchanger. A flexible drive coupling connects the gear with the engine.

The main housing is split permitting the top half to be removed, allowing removal of gears and clutches without detaching it from the engine flywheel housing or interfering with alignment. The hydraulic pump is externally mounted for easier service. Keel cooling is provided as an attachment unit.

Columbian Rope Display Rack

An easy-to-display method of selling rope was disclosed recently when a Colpack Rope Rack was put on the market by Columbian Rope Co., Auburn, N. Y. Columbian Tape-marked Pure Manila, Eureka Pure Manila, Columbian Radium Sisol and Eureka Sisal Ropes are sold in Colpack cartons.

As the rope is dispensed from the carton by drawing it through the hole in the top without removing the coil, there are no lashings to cut. It is kept clean and can be sold by the carton or in any desired length. Colpack Rope in cartons is offered in four sizes of approximately 25 lbs., 50 lbs., 75 lbs., 100 lbs., and comes in sizes of 3/16" through 3/4" diameter.

New Radiomarine Dealers

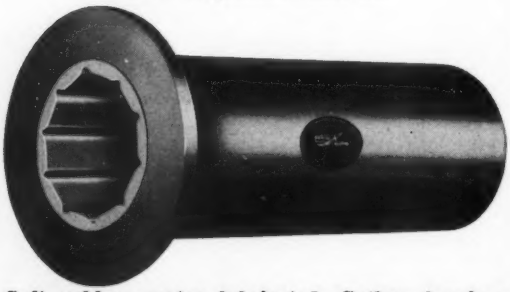
Seven additional dealers have been named for RCA Radiomarine small craft equipment according to a recent announcement from Communications Products Dept., Radio Corporation of America.

H. W. Hudson, 1309 First Street, Sarasota, Fla.; Electro-Standards Laboratories, 387 N.W. South River Drive, Miami, Fla.; E. H. Currie, 3670 N.W. 21st St., Miami; Redmond Lumber Corp., 3400 Vawter Ave., Richmand, Va.; Morris Radio & TV Service, 2908 Naches Highway, Yakima, Wash.; New York Marine Radio, Inc., 501 Fifth Ave., New York City; and Joseph Fellows, Wilmington, Cal. were those appointed.

B.F.Goodrich

Cutless Bearings

or Propeller Shafts



Soft rubber, water lubricated, Cutless bearings give years of trouble-free service on fishing vessels. Resist heat, oil, and wear. Quiet and protect shafts too. There is a size and type to fit your boat.

Available at Boat Repair Yards and Marine Equipment Dealers.

Lucian Q. Moffitt, Inc.

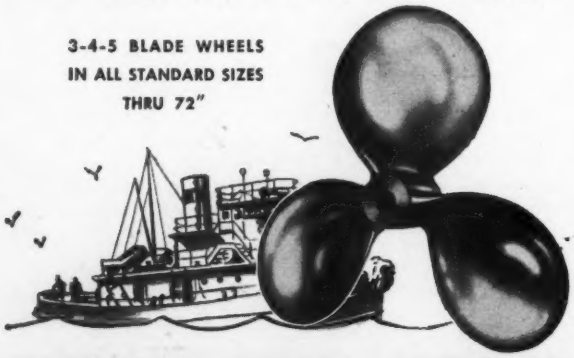
AKRON 8, OHIO

Engineers and National Distributors

MICHIGAN WHEELS OF NI-BRAL PREVENT HAUL-OUTS, SAVE MANY TIMES THEIR COST!

For craft operating under severe conditions, such as ice, rocky waters, over oyster reefs, debris infested rivers, etc., the use of our heavy pattern wheels in NI-BRAL is a real economy. More rugged than wheels of stainless steel and more adaptable to salt or polluted waters, these propellers can save hundreds of dollars a year by eliminating haul-outs, repair jobs, down-time, etc. Write for catalog, prices and complete details. FREE expert propeller recommendations on request.

3-4-5 BLADE WHEELS
IN ALL STANDARD SIZES
THRU 72"



MICHIGAN WHEEL COMPANY

GRAND RAPIDS 3, MICH.

BOAT CATCHES

For Month of August

Hailing fares. Figure after name indicates number of trips.

BOSTON (Mass.)

Alphonso (4)	31,800	Michigan (2)	193,500
Angie & Florence (3)	57,000	Minnie (3)	251,400
Annie & Lucy (3)	38,100	Mother Frances (4)	136,200
Arlington (3)	248,700		
Atlantic (3)	194,800	Nautilus (3)	193,600
		New Star (1)	72,000
Baby Rose (1)	53,400	Notre Dame (3)	92,000
Bay (2)	113,200		
Bonnie (3)	297,200	Ocean Wave (3)	96,100
Bonnie Billow (1)	37,000	Ohio (3)	254,200
Brighton (3)	171,200	Olympia LaRosa (4)	143,900
Buzz & Billy (3)	120,500		
		Pam Ann (4)	276,800
Cambridge (3)	293,900	Patty Jean (3)	263,200
Caracara (3)	127,900	Phantom (2)	222,500
Carmela Maria (4)	68,900	Plymouth (2)	135,400
Carmen & Vince (3)	121,000	Princess (5)	60,400
Charlotte M. (3)	106,200		
Comet (3)	194,800	Racer (3)	192,200
C. R. & M. (1)	23,100	Raymonde (3)	143,900
		Red Jacket (3)	316,100
Dolphin (2)	81,900	Regina Maria (3)	150,900
		Rosa B. (3)	226,100
Elizabeth B. (2)	178,500	Rosie (5)	70,600
Ethelena (3)	90,000	Rush (2)	146,100
Flying Cloud (3)	372,000	St. Angelo (2)	63,700
Four (3)	181,200	St. Marco (4)	94,700
		St. Rosalie (3)	114,500
Geraldine & Phyllis (4)	72,500	San Calogero (3)	39,000
		Sant' Antonio II (4)	61,200
Jane B. (3)	255,800	Santa Maria (3)	84,600
J. B. Junior (3)	207,000	Santa Rita II (6)	71,600
J. B. N. (1)	32,000	Sea Queen (2)	63,800
Jeanne D'Arc (3)	122,400	Savoia (2)	20,000
Jennie & Lucia (3)	70,200	Star of the Sea (2)	57,300
Josephine F. (2)	23,800	Star of the Sea (NB) (2)	52,600
Josephine P. II (3)	50,400	Swallow (2)	123,100
Katie D. (3)	207,800	Terra Nova (2)	144,500
		Texas (2)	133,600
Leonard & Nancy (4)	103,600	Thomas D. (3)	98,100
		Thomas Whalen (3)	172,800
Magellan (4)	65,400		
Manuel F. Roderick (4)	175,500	Vincie N. (3)	95,700
Maria Christina (1)	12,600		
Maria Del S. (4)	30,500	Weymouth (2)	122,100
Mary & Joan (3)	152,800	Winchester (3)	302,600
Mary Rose (1)	62,800	Wisconsin (2)	178,600
M. C. Ballard (3)	163,500		
Michael G. (3)	40,500	Yankee (1)	9,800

Swordfish Landings (No. of Fish)

Luann (1)	92

NEW BEDFORD (Mass.)

Adventurer (3)	90,000	Lorine III (1)	41,000
Althea (1)	35,000	Lubenray (3)	61,000
Anastasia E. (1)	40,200	Lynn (3)	14,400
Annie Louise (3)	17,300		
Annie M. Jackson (3)	73,500	Major J. Casey (3)	88,500
Austin W. (3)	95,900	Malvina B. (2)	65,000
		Marie & Katherine (2)	55,000
Barbara M. (4)	98,500	Mary E. D'Eon (4)	84,000
		Mary J. Landry (3)	101,800
Cap'n Bill II (3)	135,000	Mary Tapper (4)	157,300
Captain Deebold (3)	87,000	Midway (2)	74,000
Carl Henry (3)	100,000	Miriam A. (3)	94,900
Catherine & Mary (2)	69,000	Molly & Jane (4)	101,100
Charles E. Beckman (4)	69,000		
Christina J. (3)	117,000	North Sea (3)	75,500
Comber (1)	4,600		
Connie F. (2)	54,500	Pauline H. (3)	247,500
		Phyllis J. (3)	44,600
Eugene H. (2)	40,000		
		Roberta Anne (3)	90,000
Falcon (4)	97,900	Rosalie F. (2)	25,000
Friendship (3)	97,000	Rosemarie V. (3)	89,500
		Rush (3)	90,800
Gannet (2)	120,000	Ruth & Nancy (2)	16,500
Growler (2)	68,500		
		Sea Rambler (3)	81,500
Harmony (3)	76,000	Shannon (2)	10,400
Hope II (2)	75,000	Solveig J. (3)	175,500
		Stanley B. Butler (4)	253,500
Invader (3)	121,000	Susie O. Carver (4)	66,000
Ivanhoe (2)	20,400		
		Teresa & Jean (3)	165,500
Jacintha (3)	167,700	Two Brothers (3)	17,300
Janet & Jean (2)	75,000		
Joan & Tom (1)	14,800	Venture I (4)	177,900
John G. Murley (1)	75,200	Victor Johnson (4)	87,900
Julia DaCruz (2)	70,500	Viking (4)	151,000
Kelbarsam (2)	14,200	Whaler (2)	91,500

New Bedford Scallop Landings (Lbs.)

Abram H. (2)	22,800	Laura A. (3)	25,000
Adele K. (2)	22,000	Lauren Fay (3)	32,500
Agda W. (2)	16,500	Linda & Warren (2)	14,800
Aloha (3)	33,900	Linus S. Eldridge (3)	24,800
Alpar (2)	15,200	Louis A. Thebaud (1)	11,000
Amelia (3)	34,200	Louise (3)	33,400
Babe Sears (2)	17,000	Malene & Marie (3)	30,000
Baltic (2)	22,400	Marmax (2)	20,000
Barbara & Gail (2)	22,000	Mary Ann (3)	23,900
B. Estelle Burke (3)	33,000	Mary J. Hayes (2)	22,000
Bobby & Harvey (2)	22,500	Moonlight (3)	33,000
Brant (2)	22,000		
Bright Star (2)	22,000	Nancy Jane (3)	31,000
		Nellie Pet (3)	32,800
Camden (2)	22,000	New Bedford (3)	33,000
Cap'n Bill (2)	13,400	Newfoundland (2)	22,000
Carol & Estelle (2)	17,500	Noreen (2)	22,000
Catherine B. (3)	33,300		
Catherine C. (3)	33,300	Pearl Harbor (3)	30,000
Charles S. Ashley (3)	33,000	Pelican (2)	22,000
Clipper (2)	22,000	Polaris (3)	25,600
		Porpoise (2)	22,900
Dartmouth (2)	20,400		
Debbie-Jo-Ann (2)	22,300	Richard Lance (3)	28,500
		Ruth Lea (2)	22,000
Edgartown (3)	30,400	Ruth Moses (3)	30,500
Eleanor & Elsie (3)	32,100		
Elizabeth N. (3)	29,000	Sandra Jane (3)	33,400
		Sea Ranger (3)	26,300
Fairhaven (3)	32,000	Sharon Louise (2)	22,200
Flamingo (2)	22,000	Sippican (3)	32,500
Fleetwing (3)	33,000	Smilyn (2)	21,500
Florence B. (3)	32,300	Snoopy (3)	33,000
		Stanley M. Fisher (3)	32,700
Geraldine (3)	34,200	Stephen R. (1)	10,500
Hilda Garston (2)	22,400	Ursula M. Norton (3)	33,700
Jerry & Jimmy (2)	22,000	Vivian Fay (3)	33,000
Josephine & Mary (2)	22,000		
		Wamsutta (2)	20,000
Kingfisher (2)	22,000	Whaling City (3)	33,000

Swordfish Landings (No. of Fish)

Bozo (4)	100	Little Chief (3)	79
Bright Star (1)	7	Luann (1)	105
Carol Ann (1)	14	Our Gang (1)	18
Christina & Dan (2)	121		
		Sanson Joy (2)	125
Flavia (3)	20		
		Winifred M. (2)	77

WOODS HOLE (Mass.)

Admiral (1)	1,200	Little Sam (2)	3,100
Angenette (1)	500	Madeline (4)	8,600
Arnold (6)	16,000	Madonna (1)	600
Bernice (4)	9,300	Madonna DiSiracusa (2)	1,800
Carib (3)	3,800	Marie & Katherine (1)	3,400
Carol & Dennis (1)	13,300	Morning Star (4)	4,200
Clifton (5)	9,600	Natator (1)	1,000
Comber (2)	9,300	Nellie M. Stanley (1)	1,400
Curlew (3)	9,400	Oriental (1)	5,400
Dauntless (1)	2,900	Phil-Mar (1)	6,600
Dorothy & Mary (1)	7,300	Priscilla (3)	3,000
Driftwood (2)	3,700	Reliance (5)	7,600
Falcon (4)	11,100	Roann (3)	18,900
Famiglia (5)	21,300	Sammy B. (4)	5,100
Huckleberry Finn (4)	5,900	Sea Buddy (1)	600
Intrepid (4)	8,300	Serafina (1)	1,700
Janet & Elise (2)	4,500	Three & One (1)	500
Little Jeff (4)	5,900	Viking (4)	6,500

Scallop Landings (Lbs.)

Aloysius (5)	4,900	Margie O. (8)	13,300
Amphrodite (1)	800	Mary C. (1)	1,400
Bridget Ann (7)	6,000	Natator (4)	7,800
Carole Ann (2)	8,900	Papoose (2)	25,400
Gale K. (1)	400	Seer (1)	600
Gay Lady (1)	500	Sharon Louise (1)	6,300
Gertrude D. (2)	41,900	Southern Cross (2)	8,200
Harvest (1)	600	Three Bells (2)	14,700
Ingrid (5)	2,900	Whipple (1)	500
John Ashley (1)	400		

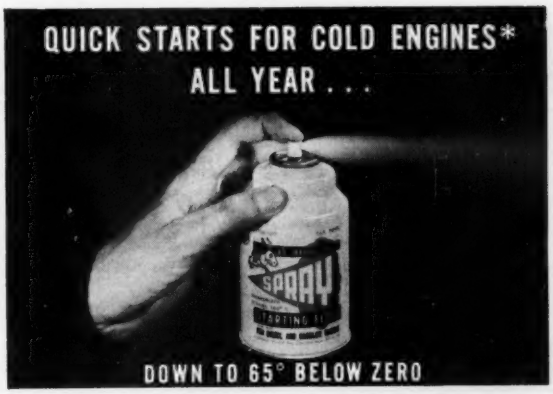
SEATTLE (Halibut Fleet Fishery)

Addington (1)	58,000	Masonic (1)	35,000
Akutan (1)	65,000	Nightingale (2)	18,500
Alaska Queen (1)	81,000	Northern (1)	66,000
Angeles (1)	46,000	Oceanus (1)	32,000
Bergen (1)	42,000	Polaris (1)	63,000
Bonanza (1)	33,300	Resolute (1)	61,000
California (2)	52,900	Salute (1)	66,000
Constitution (1)	66,000	Sanak (1)	54,000
Estep (1)	47,000	Seymour (1)	25,000
Eureka (1)	14,800	Shirley J. (1)	24,000
Ethel S. (1)	35,000	Sonja (1)	26,000
Hoover (1)	54,000	Soupfin (1)	75,000
Ilene (1)	51,000	Sunset (1)	57,200
Kaare (1)	104,000	Susan (1)	58,000
Lindy (1)	48,000	Tongass (1)	65,000
Lucky Star (1)	54,000	Trinity (1)	53,300
Maddock (2)	38,000	Vivian (1)	60,000
Marconia (1)	108,000	Wesley (1)	14,300
Marilee Ann (1)	31,000	Zenith (1)	25,000

QUICK, deep penetration — the ability to take hold instantly and sink in deeply — plus the enduring resilience and strength to hold your catch until you have brought it in. That's what Mustad Key Brand Fish Hooks deliver. Ask your fishing supplies dealer.

O. MUSTAD & SON
Established 1832
OSLO NORWAY
Sales Agents
Ed. W. Simon Co., Inc.
320 Broadway, New York 7
H. L. Bowlds & Son
2345 W 3rd St. 17070 Hamlin Rd.
Los Angeles 57 Seattle 55

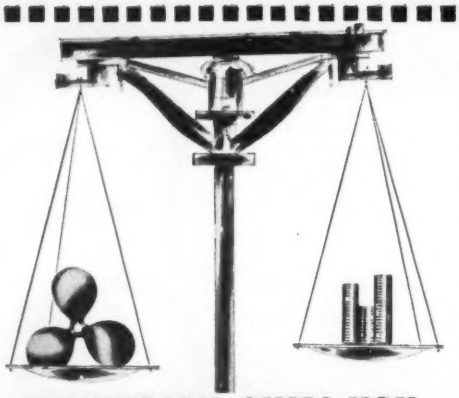
MUSTAD
Key Brand FISH HOOKS



Starting a cold engine without SPRAY STARTING FLUID is costly. Constant wear of the starting system . . . wasted man hours . . . equipment down-time . . . repeated engine strain, can be prevented with a pressurized can of SPRAY STARTING FLUID. It's so easy to use! Apply SPRAY STARTING FLUID into the air cleaner or intake air stream while cranking the engine. Continue spraying until the engine runs smoothly. Use SPRAY STARTING FLUID regularly for quick, easy and economical starting of diesel and gasoline engines. Start every work day with SPRAY!

*Until the engine reaches normal operating temperature it is a cold engine.

SPRAY PRODUCTS CORPORATION
P. O. Box 844 • Camden 1, New Jersey



COLUMBIAN GIVES YOU MORE PROPELLER PER DOLLAR!

You get **more** from **Columbian propellers** in many ways. They are made of the best alloys for the particular job, including **ELECTRALLOY** produced by low frequency electric induction melting. This major development, unique with Columbian, results in high ductility, multiple reparability and easy welding. **Columbian propellers** are **heavier** where required without carrying unneeded weight. Their **price per pound** is lower, which gives you **more propeller per dollar.** These advantages assure longer **service life** and greater **economy.** It will pay YOU to specify Columbian for new equipment and refitting, as leading marine architects do.

Designed to meet the requirements of AMERICAN BUREAU OF SHIPPING

COLUMBIAN BRONZE CORP.
FREEPORT, L. I., NEW YORK

A New Service by HASKELL & HALL, Inc.

Offered to Boat Owners and Builders

Send us the Size, Pitch, Hand, Bore and Type of the Propeller you want. If it is a Used Wheel you want, we will try and locate it for you, either from our Large Stock on Hand or from Customers' Listings with us. If it is a New Wheel, we have Your Columbian Size in Stock Now. Whether you need a spare wheel or a wheel for every day use, you will find us most happy to help you.

Propeller Owners: List Your Surplus Wheels with us and let us sell them for you.

Warehouse Distributors for Columbian Bronze Propellers

Propeller Repairs

36 Webb St. Salem, Mass. Tel. Pioneer 4-3806

NEW WHITE LINE FISH FINDER

KELVIN HUGHES MS 29F MARK III

Highest efficiency Depth Recorder for deepsea trawling and bottom fishing. Fish shoals and sea-bed sharply defined by contrasting white line. Four scale ranges: 120, 240, 360 and 480 fathoms. Operates on 24, 32 or 220 volts DC or 115 AC 60-cycle single phase.

NEW ES 130 B RECORDING DEPTHOMETER

Accurate aid to school fishing . . . four scale ranges 0/65 feet, 60/125 feet, 120/185 feet and 180/245 feet. Reads depths to one foot. Single transducer. Operates on 6 or 12 volts DC or 115 volts AC.

Brochures mailed on request.
Write for name and address of Dealer nearest you.

BLUDWORTH MARINE

Division of KEARFOTT COMPANY Inc.
1500 Main Avenue, Clifton, N. J.

GLOUCESTER (Mass.)

Acme (8)	130,500	Kingfisher (1)	210,000
Admiral (3)	255,000		
Agatha (5)	377,500	Lady of Good Voyage (2)	33,000
Agatha & Patricia (6)	630,000	Lady of the Rosary (5)	161,500
American Eagle (6)	148,000	Lawson (2)	166,000
Andrea G. (1)	110,000	Linda B. (14)	96,500
Anna Guarino (10)	41,500	Little Flower (9)	179,500
Ann & Marie (7)	41,000	Little Joe (8)	71,000
Annie (12)	62,500		
Anthony & Josephine (7)	105,500	Malolo (3)	173,000
Atlantic (3)	210,000	Manuel P. Domingoes (2)	300,000
Ave Maria (8)	134,000	Margaret Marie (9)	74,500
		Marianna II (6)	195,000
Blue Waters (2)	317,000	Mary (4)	60,500
Bonaventure (6)	514,500	Mary Ann (7)	237,000
Bonnie Bill (6)	68,500	Mary Jane (2)	365,000
Bonnie Breaker (2)	390,000	Mary Rose (2)	83,000
		Metacomet (1)	17,000
Cape Cod (7)	88,500	Morning Star (9)	220,000
Carlo & Vince (2)	6,500		
Cigar Joe (4)	122,000	Nancy & Maria (9)	85,000
Clinton (4)	46,500	Natale III (7)	204,000
Clipper (2)	310,000		
Curlew (1)	140,000	Olympia (8)	241,000
		Our Lady of Fatima (2)	375,000
Dawn (7)	46,500	Our Lady of Tears (9)	33,000
Dolphin (1)	6,500		
Doris F. Amero (5)	342,500	Philip & Grace (4)	425,500
Dragnet (2)	95,000	Pioneer (1)	1,000
		P. K. Hunt (2)	235,000
Eagle (5)	501,500	Powhatan (2)	112,000
Eddie & Lulu M. (9)	25,500	Priscilla (2)	3,000
Edith L. Boudreau (2)	35,000	Prosperity (1)	1,000
Emily H. Brown (1)	170,000		
Estrela (2)	420,000	Resolute (1)	70,000
Eva M. Martin (1)	5,500	Rose & Lucy (7)	213,000
Eva II (12)	39,000		
Evelina M. Goulart (3)	51,000	St. Anna Maria (9)	192,500
Evelyn C. Brown (1)	260,000	St. Cabrini (8)	211,500
		St. John (8)	25,500
Falcon (2)	31,000	St. Joseph (3)	120,000
Flo (1)	365,000	St. Mary (8)	147,000
Flow (1)	260,000	St. Nicholas (2)	370,000
Frances R. (7)	189,000	St. Peter (6)	221,000
Frankie & Jeanne (4)	11,000	St. Peter III (7)	175,000
		St. Providenza (11)	79,500
Gaetano S. (5)	316,000	St. Rosalie (1)	9,000
Giacoma (3)	7,000	St. Stephen (5)	105,000
Golden Dawn (2)	22,500	St. Terese (7)	164,000
Golden Eagle (2)	270,000	St. Victoria (5)	443,000
		Salvatore & Grace (6)	97,000
Holy Family (1)	29,000	Sea Queen (1)	28,000
Holy Name (6)	357,500	Sebastiana C. (5)	243,000
		Serafina N. (1)	13,000
Immaculate Conception (4)	73,500	Serafina II (8)	273,000
Irene Y. (1)	160,000	Sunlight (2)	355,000
Irma Virginia (5)	62,500		
		Theresa M. Boudreau (2)	390,000
Jackie B. (5)	114,000	Tina B. (2)	70,000
Jackson & Arthur (11)	44,400	Tipsy Parson (14)	24,500
Joseph & Lucia (4)	505,000		
Joseph S. Mattos(1)	180,000	Villanova (2)	425,000
Josephine P. II (1)	2,000	Virginia Ann (8)	164,500
Josie II (6)	92,000		
Judith Lee Rose (1)	310,000	White Owl (14)	55,900
		Wild Duck (3)	390,000

Scallop Landings (Lbs.)

Brother Joe (1)	3,000	Stephen R. (1)	10,000

ROCKLAND (Me.)

Araho (1)	126,000	Margaret Jean (8)	113,000
Elin B. (4)	233,500	Myrt II (9)	65,500
Ethel B. (8)	81,900	Ocean (2)	535,000
Flo (3)	201,500	Rhode Island (4)	148,500
Flow (1)	84,000	Storm (2)	490,000
Helen Mae II (4)	181,800	Surf (2)	550,000
John J. Nagle (3)	420,000	Tide (2)	410,000
Little Growler (4)	219,000	Verna G. (7)	82,200
Louise G. (4)	123,500	Wave (2)	470,000
Mabel Susan (4)	79,000		

STONINGTON (Conn.)

Averio (15)	14,000	Jane Dore (14)	19,000
Bette Ann (15)	22,900	Lt. Thos. Minor (17)	43,300
Carl J. (15)	44,900	Marise (14)	8,900
Carolyn & Gary (16)	52,100	Old Mystic (4)	3,700
Connie M. (16)	25,500	Theresa (4)	6,200
Dauntless (1)	1,200	Weezie May (1)	2,100
Fairweather (15)	40,500	William B. (18)	62,200

NEW YORK

North Cape (1)	19,200		

Scallop Landings (Lbs.)

Beatrice & Ida (2)	21,700	Karina T. (2)	20,200
Carol-Jack (3)	30,100	Manchonoch (1)	11,000
David A. (1)	1,500	Muskegon (1)	6,500
Enterprise (2)	22,000	Norseman (2)	20,000
Felicia (2)	22,000	Phyllis J. (1)	6,800

PORTLAND (Me.)

Agnes & Elizabeth (3)	263,000	Mary & Jennie (6)	67,700
Andarte (3)	287,000	Medan (1)	290,000
Bobby & Jack (3)	310,000	Nancy B. (3)	161,000
Cathy-Aldie (3)	9,500	Quincy (3)	540,000
Challenger (10)	119,700	Rebecca II (12)	102,400
Cigar Joe (1)	38,000	Resolute (2)	115,000
Courier (2)	235,000	St. George (1)	185,000
Crescent (11)	176,000	St. Joseph II (10)	105,000
Dorothy & Ethel II (3)	62,500	Sea Hawk (3)	375,000
Elinor & Jean (3)	106,000	Theresa R. (1)	142,000
Gaetano S. (1)	10,000	Vagabond (3)	145,000
Gulf Stream (2)	380,000	Vandal (5)	250,000
Lawrence Scola (8)	115,200	Vida E. II (13)	185,500
Lawson (2)	153,000	Voyager (3)	111,600
Marie H. (3)	40,000	Wawenock (1)	224,000
Mary & Helen (9)	118,800	Winthrop (3)	275,000

Flag and Light Signals Indicate Cable Laying

The past two years have marked one of the most active cable-laying periods in maritime history. Since 1950, deep-sea telephone cables linking the United States with Cuba, Hawaii, Alaska, and Great Britain have been placed at the bottom of the sea. Extensive submarine cable work will be going on at least for two years.

In accordance with the International Rules of the Road governing ocean vessels, adopted in the 1880's, special attention has been afforded ships engaged in special projects, just as the right of way is always given emergency vehicles on streets and highways. Of particular interest on the high seas is the respect and attention paid to vessels engaged in the laying of submarine cable.

Well defined signals governing the laying of ocean cables have not changed since the 1880's, and ensuing Rules of the Road conferences have affirmed the need for continuing them. During daylight hours, the signal of two red spheres separated by a white diamond, is displayed from the flag hoist and indicates a vessel is laying cable while underway. At nightfall, the spheres are replaced by red lights and the diamond by a white light.

Shore operations in waters off Newfoundland and France got underway this summer for a second transatlantic cable. J. A. Bowman, general manager of special projects of the Long Lines Dept. of American Telephone and Telegraph Company, said HMTS *Iris* had been laying shore-end cable off the port of Clarenville, and the *Ampere* off Penmarch on the coast of Brittany. Clarenville and Penmarch are the western and eastern terminals of the 2,400 mile submarine system.

When completed in late 1959, the new voice system between the United States and Europe will be able to carry 36 simultaneous conversations. Thirteen cable units will go to France, 13 to Germany, and the rest will be available for other European countries. The $40,000,000 project is a joint undertaking of the A. T. and T. and communications agencies of the French and German governments.

A second telephone cable is scheduled for 1959 by the company, linking Florida and Puerto Rico. Another submarine cable across the Atlantic is planned by communication agencies in Canada and Great Britain.

Walter V-Drives FOR ALL ENGINES — BOATS

Conventional V-Drive

MODERN BOAT PROPULSION

Quiet operation.
Saves valuable cabin space.
Various ratios and sizes for all gas and diesel engines.

Makers of:
Clean-Flo Keel Coolers
Reduction Gears
Transfer Drives

Illustrated literature on request.

THE WALTER MACHINE CO., Inc.
84 Cambridge Ave. Jersey City 7, N. J.

NETS • RAKES • TONGS

Bait Netting - Wire Baskets
Rope - Lobster Pot Heading Twine - Corks
LARGE STOCK
Prompt, intelligent, personal attention to your order

W. A. AUGUR, Inc.
54 Beekman Street New York 38, N. Y.
BEekman 3-0857

"The Capitol" EF PROVIDES SMOOTH, 100% REVERSE WITH EASY MANEUVERABILITY

EF Reverse & Reduction Gear

Was designed especially to give you easier control and simple operation on any of the following engines—Caterpillar D-311, Cadillac, Oldsmobile 88 and 98, Chevrolet V-8, Pontiac V-8 and Buick V-8 (up to 210 h.p.) Ford and Mercury V-8 (85 h.p. and up) also Fordson Diesel.

Capitol Gears are almost as easy to install as they are to reverse. Built to give a lifetime of service!

Write for complete information:

SINCE 1905 AUTO ENGINE WORKS, INC.
★ 333(A) North Hamline Avenue • St. Paul 4, Minnesota

SEARCHLIGHTS
NAVIGATION & FLOOD LIGHTS
BY The Carlisle & Finch Co.
Designers & Manufacturers of the World's Finest Marine Lighting Equipment

For all Inland BOATS and Sea-going SHIPS

Searchlights Wheel control

IMMEDIATE SHIPMENT ON CARBONS, LAMPS & REPAIR PARTS
Write today to Dept. N1 for complete specifications.
4562 W. Mitchell Ave. Cincinnati 32, Ohio

Signalling Searchlights

FOR BETTER FISHING
MODEL "C"
"SURECHO"
MORE DEPTH PER $
120 Fathoms
For 6, 12, 32 V. D.C. and 110 V. A.C. Operation
Accurate • Reliable • Sea Going
WHITE
Ask your dealer

Send for descriptive folder.

Manufactured by
WILFRID O. WHITE & SONS, INC.
(Formerly Kelvin-White Company)
178 ATLANTIC AVE., BOSTON 10, MASS.
406 Water St., Baltimore 2, Md. 40 Water St., New York 4, N. Y.
EXPORT DEPT.: 100 E. 42nd St., New York 17. Cable: PHILYORK

WHERE-TO-BUY DIRECTORY

AIR STARTING MOTORS
Ingersoll-Rand Co., 11 Broadway, New York 4, N. Y.

ANCHORS
Danforth Anchors, 2121 Allston Way, Berkeley, Calif.
"Northill": Air Cruisers Div., Garrett Corp., Belmar, N. J.

ANTIBIOTICS
Chas. Pfizer & Co., Inc., 630 Flushing Ave., Brooklyn 6, N. Y.

BATTERIES
Bowers Battery & Spark Plug Co., Box 1262, Reading, Pa.
Crescent Battery & Light Co., Inc., 819 Magazine St., New Orleans 12, La.
Exide Industrial Division—The Electric Storage Battery Co., 42 South 15th Street, Philadelphia 2, Pa.
Surrette Storage Battery Co., Salem, Mass.

CANS
Continental Can Co., 100 E. 42nd St., New York, N. Y.

CLOTHING
A. J. Tower Co., 24 Simmons St., Boston, Mass.
United States Rubber Co., Rockefeller Center, New York, N .Y.

COLD STORAGE
Quaker City Cold Storage Co., Philadelphia, Pa.

COMPASSES
John E. Hand & Sons Co., Atlantic & Washington Avenues, Haddonfield, N. J.
Marine Compass Co., Pembroke, Mass.
E. S. Ritchie & Sons Inc., Pembroke, Mass.
Wilfrid O. White & Sons, Inc., 178 Atlantic Ave., Boston 10, Mass.

CORDAGE
Bob Stone Cordage Company, Chariton, Iowa.
Cating Rope Works, Inc., Maspeth, N. Y.
Columbian Rope Co., Auburn, N. Y.
The Edwin H. Fitler Co., Philadelphia 24, Pa.
New Bedford Cordage Co., 131 Court St., New Bedford, Mass.

DEPTH SOUNDERS
Bendix Aviation Corp., Pacific Div., 475 Fifth Ave., New York 17, N. Y.
Edo Corporation, College Point, L. I., N. Y.
Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.
Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.
Wilfrid O. White & Sons, Inc., 178 Atlantic Ave., Boston 10, Mass.

DIESEL TESTING EQUIPMENT
Kiene Diesel Accessories, Inc., 10352 Pacific Ave., Franklin Park, Ill.

DIRECTION FINDERS
Bludworth Marine, 92 Gold St., N. Y. 7, N. Y.
Kaar Engineering Corp., Palo Alto, Calif.
Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.
Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

ELECTRIC GENERATING PLANTS
D. W. Onan & Sons, Inc., University Ave., S.E. at 25th, Minneapolis 14, Minn.

ENGINES—Diesel
Allis-Chalmers, Buda Division, 1135 S. 70th St., Milwaukee 1, Wisc.
American MARC Inc., 1601 W. Florence Ave., Box 549, Inglewood, Calif.
Burmeister & Wain American Corp., Lathrop Engine Div., Mystic, Conn.
Caterpillar Tractor Co., Peoria, Ill.
Cummins Engine Co., Columbus, Ind.
Detroit Diesel Engine Div., General Motors Corp., 13400 W. Outer Drive, Detroit 28, Mich.
Enterprise Engine & Machinery Co., 18th and Florida Sts., San Francisco 10, Calif.
Fairbanks, Morse & Co., Chicago, Ill.
Ford Marined Engines, Osco Motors Corp., 3627 N. Lawrence St., Philadelphia 40-AF, Pa.
Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.
P&H Diesel Engine Division Harnischfeger Corp., 500 S. Main Street, Crystal Lake, Illinois.
Hercules Motors Corp., 101 Eleventh St., S.E., Canton, Ohio
Lister-Blackstone, Inc., 42-32 21st St., Long Island City 1, N. Y.
H. O. Penn Machinery Co., Inc., East River and 140th St., New York, N. Y.
Perkins Machinery Co. Inc., Exit 53 Route 128, Needham Hts., Mass.
Petter Engine Div., Orenda Industrial, Inc., 34-14 58th St., Woodside 77, N. Y.
Red Wing Marine Corp., Red Wing, Minn.
Waukesha Motor Co., Waukesha, Wisc.
White Diesel Engine Division, White Motor Co., Springfield, Ohio.
Wolverine Marine Dept., The Coulter & McKenzie Machine Co., 35 Union Ave., Bridgeport 3, Conn.

ENGINES—Gasoline
Burmeister & Wain American Corp., Lathrop Engine Div., Mystic, Conn.
Marine Engine Division, Chrysler Corp., 7700 Russell St., Detroit 11, Mich.
Ford Marined Engines, 3627 N. Lawrence St., Philadelphia 40-AF, Penna.
Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.
Norseman Marine, 105 Nevada St., Oshkosh, Wisc.
Red Wing Marine Corp., Red Wing, Minn.

ENGINES—Outboard
Evinrude Motors, 4670 N. 27 St., Milwaukee 16, Wis.
Johnson Motors, 6300 Pershing Rd., Waukegan, Ill.

FISH KNIVES
R. Murphy Co., Ayer, Mass.

FISHING GEAR
The Harris Co., Portland, Me.
Marine Construction & Design Co., 2300 Commodore Way, Seattle 99, Wash.
Westerbeke Fishing Gear Co., Inc., Fish Pier Road, Boston 10, Mass.

FLARE SIGNALS
Kilgore Inc., International Flare Signal Div., Westerville, Ohio

FLEXIBLE HOSE LINES
Aeroquip Corp., 300 South East Ave., Jackson, Mich.

FLOATS
Dale Plastics Corp., 5736 12th St., Detroit 8, Mich.
J. H. Shepherd Son & Co., Elyria, Ohio.
B. F. Goodrich Sponge Products Division, Shelton, Conn.
The Linen Thread Co., Inc., 418 Grand St., Paterson 1, N. J.

GENERATING SETS
Allis-Chalmers, Buda Division, 1135 S. 70th St., Milwaukee 1, Wisc.
Winpower Mfg. Co., Newton, Iowa

GENERATORS
Safety Industries, Inc., Box 904, New Haven 4, Conn.
Winpower Mfg. Co., Newton, Iowa

HEAT EXCHANGERS
Sen Dure Products, Inc., 95 E. Union St., Bayshore, N. Y.

HOOKS
O. Mustad & Son, Oslo, Norway.
"Pflueger": Enterprise Mfg. Co., 110 Union St., Akron, Ohio.

INSULATION
"Styrofoam" (Expanded Dow Polysytrene): The Dow Chemical Co., Midland, Mich.

LIFE RAFTS
"Seafarer": Capt. A. J. Pedersen, 78 Woodmont St., Portland, Me.

LORAN
Edo Corporation, College Point, L. I., N. Y.
Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.

MOTOR GENERATORS
Safety Industries, Inc., P.O. Box 904, New Haven 4, Conn.

NETS
W. A. Augur, Inc., 54 Beekman St., New York 38, N. Y.
The Fish Net & Twine Co., Menominee, Mich.
The Linen Thread Co., Inc., 418 Grand St., Paterson 1, N. J.
Joseph F. Shea, Inc., East Haddam, Conn.
A. M. Starr Net Co., 10 Summit Street, East Hampton, Conn.
Western Trawl & Supply Co., Freeport, Texas

OIL—Lubricating
The California Oil Co., Perth Amboy, N. J.
Gulf Oil Corp., Gulf Bldg., Pittsburgh, Pa.
Socony Mobil Oil Co., Inc., Marine Sales Dept., 26 Broadway, New York 4, N. Y.
Standard Oil Co. of California, Standard Oil Bldg., San Francisco, Calif.

PAINTS
The Federal Paint Co., Inc., 33 Rector St., New York 6, N. Y.
Henderson & Johnson, Inc., Gloucester, Mass.
International Paint Co., Inc., 21 West St., New York, N. Y.
Pettit Paint Co., Belleville, N. J.
Tarr & Wonson Ltd., Gloucester, Mass.
C. A. Woolsey Paint & Color Co. Inc., 205 East 42nd St., New York 17, N. Y.

PLYWOOD
Douglas Fir Plywood Assoc., Tacoma 2, Wash.

PRESERVATIVES
Robeson Preservo Co., 214 Merchant St., Port Huron, Mich.

PROPELLERS
Columbian Bronze Corp., Freeport, N. Y.
Federal Propellers, Grand Rapids, Mich.
Ferguson Propeller and Reconditioning Co., 1132 Clinton St., Hoboken, N. J.
Hyde Windlass Co., Bath, Maine.
Michigan Wheel Co., Grand Rapids, Mich.

PROPELLER RECONDITIONING
Columbian Bronze Corp., Freeport, N. Y.
Ferguson Propeller and Reconditioning Co., 1132 Clinton St., Hoboken, N. J.

PROPELLER REPAIRS
Columbian Bronze Corp., Freeport, N. Y.
Ferguson Propeller and Reconditioning Co., 1132 Clinton St., Hoboken, N. J.
Haskell & Hall, Inc., 36 Webb St., Salem, Mass.

PROPELLER SHAFTS
The American Brass Co., Waterbury 20, Conn.
The International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.

PUMPS
Jabsco Pump Co., 2031 N. Lincoln St., Burbank, Calif.
Sudbury Laboratory, South Sudbury, Mass.

RADAR
Bendix Aviation Corp., Pacific Div., 475 Fifth Ave., New York 17, N. Y.
Decca Radar Inc., 539 West 25th St., New York 1, N. Y.
Edo Corporation, College Point, L. I. N. Y.
Lavoie Laboratories, Inc., Morganville 16, N. J.
Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.

RADIO TELEPHONES
Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.
Bludworth Marine, 92 Gold St., New York 38, N. Y.
Hudson American, 29-01 Borden Ave., Long Island City 1, N. Y.
Kaar Engineering Corp., Palo Alto, Calif.
Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.

RANGES—Galley
"Shipmate"—Shipmate Stove Division, Souderton, Pa.
"Shipmate" and "Webbperfection" — Elisha Webb & Son Co., 136 S. Front St., Philadelphia 6, Pa.
Harry C. Weiskittel Co., Inc., 4901 Pulaski Highway, Baltimore 24, Md.

REDUCTION GEARS
Auto Engine Works, Inc., 333 (A) North Hamline Ave., St. Paul 4, Minn.
Snow-Nabstedt Gear Corp., Welton St., Hamden, Conn.
Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.
The Walter Machine Co., Inc., 84 Cambridge Ave., Jersey City 7, N. J.
Western Gear Corp., P. O. Box 126, Belmont, Calif.

RUST PREVENTIVES
Sudbury Laboratory, South Sudbury, Mass.

SEARCHLIGHTS
The Carlisle & Finch Co., 4562 W. Mitchell Ave., Cincinnati 32, Ohio

SHIPBUILDERS
Blount Marine Corp., Warren, Rhode Island.
Diesel Engine Sales Inc., St. Augustine, Fla.
Diesel Engine Sales of Ft. Myers, Fla., Inc., 2909 Frierson, Ft. Myers, Fla.
Harvey F. Gamage, So. Bristol, Maine.
General Marine Boatyard, Inc., Fort Myers Beach, Fla.
Gladding-Hearn Shipbuilding Corp., 1 Riverside Ave., Somerset, Mass.
Morehead City Shipbuilding Corp., Morehead City, N. C.

SILENCERS
The Maxim Silencer Co., 126 Homestead Ave., Hartford, Conn.

STARTING FLUID
Spray Products Corp., P. O. Box 584, Camden 1, N. J.

STEERING GEAR
Metal Marine Pilot, 342 Golden Gate Ave., Tacoma, Wash.

STERN BEARINGS
Byron Jackson Tools, Inc. 1900 E. 65th St., Los Angeles 1, Calif.
"Goodrich Cutless": Lucian Q. Moffitt, Inc., Akron 8, Ohio.

TRAWL CABLE METERS
Olympic Instrument Laboratories, Vashon, Wash.

TWINE
Brownell & Co., Inc., Moodus, Conn.
Columbian Rope Co., Auburn, N. Y.

V-BELTS
Flexible Steel Lacing Co., 4683 Lexington St., Chicago 44, Ill.

VOLTAGE REGULATORS
Safety Industries, Inc., Box 904, New Haven 4, Conn.

WINCHES
Hancock Marine, 1567 No. Main St., Fall River, Mass.
Hathaway Machinery Co., Inc., New Bedford, Mass.
Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

WIRE ROPE
American Steel & Wire Division, United States Steel, Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio.
Hackensack Cable Corp., 110 Orchard St., Hackensack, N. J.
John A. Roebling's Sons Co., Trenton 2, N. J.
Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp., Palmer, Mass.

FOREIGN BAILINGS

A MECHANICAL CLAM DIGGER will soon be available for commercial use the chairman of the Canadian Fisheries Research Board, Dr. J. L. Kask announced recently. The new machine is reported to be less destructive to young clams than the hand digging method and will be able to harvest clams that are not exposed by low tides.

REPORTS ON NEW VESSELS have appeared recently in the Japanese fisheries trade press. The first of two 2,000 ton freezer-cannery ships built under the Philippine reparations program was launched a short while ago.

Christened the Magsaysay, the vessel has a fish-hold capacity of 350 metric tons, ice-making machinery for ten tons a day, and canning equipment capable of turning out 840 cases of fish a day.

The ship was built at a cost of over US $1 million and is equipped with freon refrigeration, radar, radio direction finder, and echo sounder.

Main engine horsepower is given as 1,500 and speed at 10 knots. She is scheduled for delivery in mid September and will be used for sardine and skipjack canning based at Illoilo, Philippine Islands.

THE TUNA CATCH this season for South Australia totaled 545 metric tons. This compares with 230 tons in 1957 and 150 tons in 1956. The 545-ton catch was taken by two boats. Adding the New South Wales catch of approximately 950 tons, gives a record Australian tuna catch of 1,495 tons.

FOR COD FISHING on the Grand Banks in the North Atlantic, the Cuban National Fisheries Institute has purchased from West Germany the *Arktis*.

The vessel is 129 feet long and was built in Kiel, Germany, in 1950. She has a beam of 39 feet and a draft of 11 feet. Refrigerating facilities consist of 300 cubic meters capacity, and the vessel is expected to be able to transport 180 metric tons of fish.

The *Arktis* is also equipped with radar, sonar, navigational equipment, and a fishfinding device.

TUNA CANNED IN AGAR, exported for the first time by Japan to the United Kingdom, is finding rapidly growing acceptance in foreign markets, particularly in West Germany.

The canned-in-jelly pack consist of large irregular flakes and agar jelly only slightly greater than the quantity of oil usually found in oil pack.

Index to Advertisers

Allied Diesel Sales & Service Inc.	4
The American Brass Co.	27
W. A. Augur, Inc.	39
Auto Engine Works, Inc.	39
Bludworth Marine	38
The Boston Metals Co.	42
Brownell & Co., Inc.	2
The Carlisle & Finch Co.	39
Marine Engine Division, Chrysler Corp.	44
Columbian Bronze Corp.	38
Columbian Rope Co.	1
Evinrude Motors	28
General Marine Boatyard, Inc.	42
Gladding-Hearn Shipbuilding Corp.	42
The Harris Co.	42
Haskell & Hall, Inc.	38
The International Nickel Co., Inc.	6
International Paint Co., Inc.	31
The Linen Thread Co., Inc., Arc Plastic Floats	29
Lister-Blackstone, Inc.	28
Wm. M. McClain, Inc.	42
Michigan Wheel Co.	36
Lucian Q. Moffitt, Inc.	36
Morehead City Shipbuilding Corp.	27
O. Mustad & Son	37
New Bedford Cordage Co.	32
Perkins Machinery Co., Inc.	33
Snow-Nabstedt Gear Corp.	26
Sponge Products Div., B. F. Goodrich Co.	43
Spray Products Corp.	37
A. M. Starr Net Co.	30
The Walter Machine Co., Inc.	39
Westerbeke Fishing Gear Co.	42
Western Gear Corp.	3
Western Trawl & Supply Co.	6
Wilfrid O. White & Sons, Inc.	39
Winpower Mfg. Co.	8

BOAT & GEAR MART

Classified Advertising Rates: $1.00 per line, $5.00 minimum charge. Count 9 words to a line. Closing date, 25th. National Fisherman, Goffstown, N. H.

FOR SALE

Cruisers, draggers, auxiliaries—all types and sizes. If you are in the market for anything in that line, please write us—no inquiry too small to merit attention. KNOX MARINE EXCHANGE, INC., CAMDEN, MAINE.

BOATS AND SHIPS FOR SALE AND CHARTER

Purse seiners, draggers, trollers, freezer vessels, tugs, barges, water taxis, cargo ships, tankers, passenger ships, dredges, yachts, surplus type vessels and used marine equipment. World-wide contacts. JERRY'S BOAT SALES, 310 West 7th St., San Pedro, Calif.

GOVERNMENT SURPLUS EQUIPMENT LIST

Buy surplus direct from Government at tremendous savings. Boats, motors, gear, machinery, power tools, truck jeep, hundreds others. List $1.00. Surplus Bulletin, Box 169NAE, East Hartford 8, Conn.

BOAT FOR SALE

New work boat, 60′ x 18′ x 5′, good sea boat. Very sharp, Gray Diesel good as new suitable for commercial fishing or freighting, with or without dredge rig. Tel. Hampton 3-8076. Willie King, 3310 Kecoughton Road, Hampton, Va.

BOATS FOR SALE

43 ft. combination dragger and seiner; Palmer drag and seine winch, Apelco radio, Bendix recorder—$4,800.

Two 34 ft. fish carriers (500 bu.) Chryslers—$2,500 each. L. I. Fish Co., 1904 Cleveland Ave., Belmar, N. J. Phone Mutual 1-2816.

STEEL FISHING BOATS

Gladding - Hearn

SHIPBUILDING CORPORATION

SOMERSET, MASS.

THE HARRIS COMPANY

PORTLAND, MAINE

Specializing in Fishing Boat Supplies

Marine Hardware — Dragging Equipment
Electronics — Fuel — Groceries

GEAR FOR SALE

New (not surplus) Snow-Nabstedt (2 to 1) clutch reduction gear, No. 2 Bell housing, $600.00. Perry Mill Wharf, Newport, R. I. Viking 6-1383.

ENGINES FOR SALE

GM-6-110 new and unused. Still on original skids. 3.75:1 marine gear, heat exchanger cooling, 1500-W, 32-v generator. Big discount for cash.

Fairbanks-Morse Model 35E10 rated 240 B.H.P. at 400 R.P.M. Running condition—or can be used for parts. Cheap.

For information write Virginia Tractor Co., Inc., Box 1638, Richmond 13, Va. or 'phone Richmond, Va. ELgin 5-9138 Mr. Amos.

DRAGGER "ALTHEA J." FOR SALE

42′ x 12½′ x 5½′ GM 6-71 1½ to 1 reduction gear. Fully equipped, now fishing. Price $5,000. Sciabarra's Barge, Ft. Ave. 2 and Knapp St., Sheepshead Bay, Brooklyn, N. Y. or call TE 6-4298 after 9 PM.

NEW TWIN-DISC MARINE REVERSE AND REDUCTION GEARS—3.05:1—MG150—MODEL X8708

Fits any GM-6-71 marine engine—offered right or left hand. Buy now while you can choose. Price: $775 each, F. O. B. warehouse, Baltimore.

THE BOSTON METALS COMPANY

313 E. Baltimore St. — Baltimore 2, Md. — ELgin 5-5050

To Sell your Boat, Engine, Gear
Use the BOAT AND GEAR MART
in National Fisherman

Rates: Only $1.00 per line; minimum charge $5.00
Send copy to NATIONAL FISHERMAN, Goffstown, N. H.

SHRIMP BOATS BUILT TO ORDER

All Types of Marine Repairs

GENERAL MARINE BOATYARD, Inc.

Don Kiesel John Pterudis

FORT MYERS BEACH, FLORIDA

Telephone Mohawk 3-4971 and 3-4071

Commission Merchants and Wholesale Dealers in

ALL TYPES OF FROZEN SEAFOOD

WM. M. McCLAIN, INC.

231 S. FRONT ST. PHILADELPHIA, PA. 230 S. WATER ST.

WESTERBEKE FISHING GEAR CO., INC.

Grimsby Trawls
Wesco Cod-end Protectors
Wire and Manila ropes

— *Distributors* —

Boston 10, Mass.

Also store and warehouse Gloucester, Mass.

Marine Hardware
Danforth Anchors
Paints — Fittings

B.F.Goodrich

"We fill the hold all the sooner..."

"The size of our pay check depends on the amount of fish we catch. That is why we're glad B. F. Goodrich floats are on our nets. Our day is shorter, our work lighter, and our catch bigger," says Captain C. Clifton Lewis, skipper of the 110 foot Motor Vessel Capt. Charlie Lewis of the F. B. Walker fleet.

"Formerly, with waterlogged floats, our lines would be dragged anywhere from six inches to a foot and a half below the surface by the weight of the fish in the net. B. F. Goodrich floats, however never go below the surface. Loss of fish at submerged points is completely eliminated. This helps us fill the ship's hold all the sooner, and makes our workday 1½ hours shorter.

"B. F. Goodrich floats stay their original lightweight, don't double in weight by absorbing water and salt. This plus the fact we use 1300 less floats makes lighter, faster work for the net crews. And our inventory is much smaller because we don't have to replace cork floats which have lost their buoyancy even after a season's drying period.

"With B. F. Goodrich floats we no longer have the breakage problem caused by closing the net or being pulled over the gunwales of the boats. In three years of fishing, we have yet to replace any significant number of floats.

"You can see why we are so happy with B. F. Goodrich."

Your fishing operation will profit with B. F. Goodrich floats too. Write today for more information. B. F. Goodrich Company, 492 Derby Place, Shelton, Connecticut.

*Made under Pat. No. 2,737,503

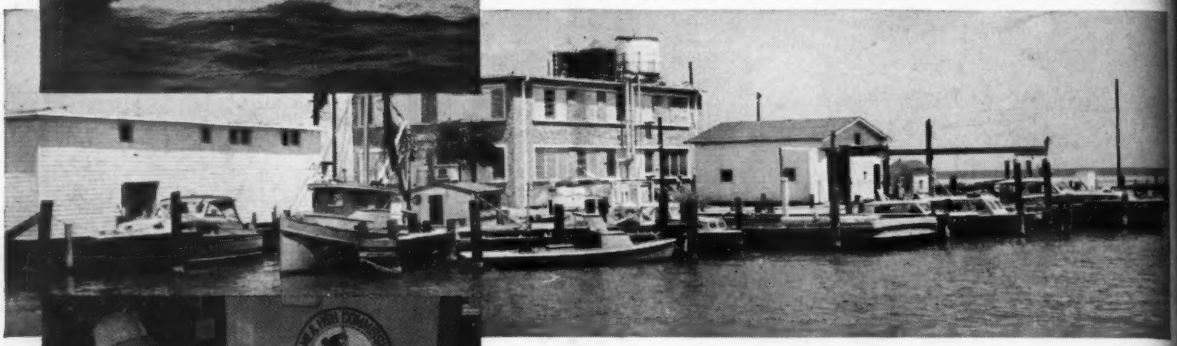
B.F.Goodrich

Spongex seine floats

Texas Coastal Waters explored and patroled with Chrysler Marine Power

M. B. Mullinax, Game Warden Supervisor, patrols Rockport Bay in 26-ft. Chrysler-powered patrol boat.

Marine Laboratory, Marine Fisheries Division, Texas Game & Fish Commission, Rockport, Texas.



Marine Fisheries Division, Texas Game and Fish Commission operates a fleet of 24 boats along the Texas coast. Most of the boats are powered by Chrysler Marine Engines—others are being re-powered with Chrysler as present engines wear out.

Eight of the boats—specially designed and built by Williamson Boat Works, Riviera, Texas—are used by game wardens for patrol work. All are Chrysler powered—125-h.p. Crowns and 225-h.p. Imperial V Specials—for economical cruising, plus top speeds when required.

Other boats in the fleet are used for the Division's two-fold job: (1) studying marine life in order to protect and augment the supply of fish, shrimp and oysters; (2) locating and evaluating oyster shell reefs from which the Division derives much of its operating revenue.

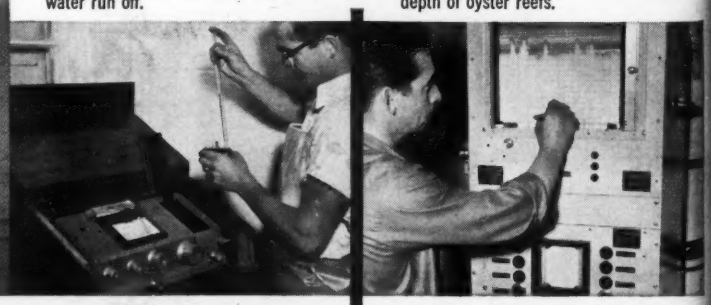
In spite of the fact that the boats operate the year round in salt water, Director Howard T. Lee reports that Chrysler engines have an outstanding record for dependability, low maintenance cost, economical operation.

S. S. Shults (left), Marine Maintenance Engineer, and Howard T. Lee, Director, Marine Fisheries Division inspect 225-h.p. Chrysler Imperial V Special on the Boat "Star Gazer."

Roy Spears, Chemist, tests water samples from different bays to determine salinity which varies greatly according to inland water run off.

William Horseman, Marine Geologist, operates fathometer-like instrument aboard the "Star Gazer" to determine location and depth of oyster reefs.

T. R. Leary, Assistant Director, takes water from various depths for laboratory analysis.



CHRYSLER

America's No. 1 Marine Engine

Marine Engine Division • Chrysler Corporation